

STIC-EIC1600/2900

295711

From: Mattison, Lori K.  
Sent: Wednesday, May 13, 2009 10:38 AM  
To: STIC-EIC1600/2900  
Subject: Structure search

Examiner: Lori Kay Mattison

Emp#

Art ID

Appl#

Effect

Earliest

Good morning! ☺

Please search structures recited by claims 17, 18, and 19, in light of the elected species (see attached pdfs of claims and the species election). If you can search the elected species with respect to claim 16, that would be great, but I am more interested in identifying the elected species of chemical.

Please send a result as soon as possible.

Please send email or call me at 571-270-5866 if you have any questions.

Thank you,

Lori

5/13/2009

LB

=> file registry

FILE 'REGISTRY' ENTERED AT 14:00:17 ON 22 MAY 2009

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Property values tagged with IC are from the ZIC/VINITI data file

10/579814

provided by InfoChem.

STRUCTURE FILE UPDATES: 21 MAY 2009 HIGHEST RN 1148104-81-7  
DICTIONARY FILE UPDATES: 21 MAY 2009 HIGHEST RN 1148104-81-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

Please note that search-term pricing does apply when  
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REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
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<http://www.cas.org/support/stngen/stdoc/properties.html>

=> file zcaplus

FILE 'ZCAPLUS' ENTERED AT 14:00:20 ON 22 MAY 2009  
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FILE COVERS 1907 - 22 May 2009 VOL 150 ISS 22  
FILE LAST UPDATED: 21 May 2009 (20090521/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2009

ZCAplus now includes complete International Patent Classification (IPC)  
reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'ZCAPLUS' FILE

=> d stat que L67

L6	74	SEA	FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	PANIN G##/AU
L7	12	SEA	FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	PANIN GIORGIO/AU
L8	86	SEA	FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L6 OR L7
L38	126993	SEA	FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	POLYOXYALKYLENE?/CW
L39	100560	SEA	FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	FLUOROPOLYMER?/CW OR FLUORO RUBBER?/CW
L40	2708	SEA	FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L38 (L) ?FLUORO?/BI

10/579814

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L41      8146 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L39 (L) (?POLYOXYALKYL
        ?/BI OR PEG?/BI OR POLYETHYLENE GLYCOL?/BI)
L42      1364 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L40 AND L41
L67      1 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L8 AND L42
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=> d stat que L69

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L6      74 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  PANIN G##/AU
L7      12 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  PANIN GIORGIO/AU
L8      86 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L6 OR L7
L38     126993 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  POLYOXYALKYLENE?/CW
L69      1 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L8 AND L38
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=> d stat que L70

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L6      74 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  PANIN G##/AU
L7      12 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  PANIN GIORGIO/AU
L8      86 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L6 OR L7
L39     100560 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  FLUOROPOLYMER?/CW OR
        FLUORO RUBBER?/CW
L70      1 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L8 AND L39
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=> d stat que L71

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L5      8 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  (127-40-2/BI OR
        11103-57-4/BI OR 1406-18-4/BI OR 222838-60-0/BI OR 324519-76-8/
        BI OR 50-81-7/BI OR 502-65-8/BI OR 639001-45-9/BI)
L6      74 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  PANIN G##/AU
L7      12 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  PANIN GIORGIO/AU
L8      86 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L6 OR L7
L71      8 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L5 AND L8
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=> s L67 or L69 or L70 or L71

```
L74      8 L67 OR L69 OR L70 OR L71
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=> file medline embase biosis wpix

FILE 'MEDLINE' ENTERED AT 14:01:15 ON 22 MAY 2009

FILE 'EMBASE' ENTERED AT 14:01:15 ON 22 MAY 2009

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FILE 'BIOSIS' ENTERED AT 14:01:15 ON 22 MAY 2009

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=> d stat que L73

```
L73      1 SEA PANIN G?/AU AND ?FLUORO? AND COSMETIC?
```

=> dup rem L74 L73

FILE 'ZCAPLUS' ENTERED AT 14:01:26 ON 22 MAY 2009

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FILE 'WPIX' ENTERED AT 14:01:26 ON 22 MAY 2009

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PROCESSING COMPLETED FOR L74

PROCESSING COMPLETED FOR L73

L75 8 DUP REM L74 L73 (1 DUPLICATE REMOVED)  
ANSWERS '1-8' FROM FILE ZCAPLUS

=> d ibib abs hitind hitstr L75 1-8

L75 ANSWER 1 OF 8 ZCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2005:472000 ZCAPLUS Full-text

DOCUMENT NUMBER: 143:13003

TITLE: Cosmetic and/or dermatological compositions containing  
polyphenols stabilized by perfluoropolyether  
phosphates

INVENTOR(S): Panin, Giorgio

PATENT ASSIGNEE(S): Bio. Lo. Ga. S.r.L., Italy

SOURCE: PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005049089	A2	20050602	WO 2004-EP9667	20040830
WO 2005049089	A3	20050728		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004290876	A1	20050602	AU 2004-290876	20040830
CA 2546172	A1	20050602	CA 2004-2546172	20040830
EP 1684700	A2	20060802	EP 2004-764633	20040830
EP 1684700	B1	20070328		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
CN 1882309	A	20061220	CN 2004-80034178	20040830
AT 357901	T	20070415	AT 2004-764633	20040830
JP 2007511549	T	20070510	JP 2006-540191	20040830
JP 4102419	B2	20080618		
ES 2285500	T3	20071116	ES 2004-764633	20040830
IN 2006CN02174	A	20070608	IN 2006-CN2174	20060619
US 20070148109	A1	20070628	US 2006-579814	20061013
PRIORITY APPLN. INFO.:			EP 2003-425742	A 20031119
			WO 2004-EP9667	W 20040830

AB The present invention relates to the use of perfluoropolyether phosphates, in particular perfluoropolyether diphosphates (0.2 to 1.0% by weight), as stabilizing agents for polyphenols in cosmetic and/or dermatol. compns. for topical application, and it also concerns cosmetic and/or dermatol. compns. containing polyphenols and optionally vitamin E and free ascorbic acid, stabilized by perfluoropolyether diphosphates. For example, a cream was prepared containing Steareth-2 4, Steareth-21 4, cetearyl alc. 4, glyceryl stearate 3, octyldodecanol 3, dimethicone 0.5, tocopherol 5, glycerin 8,

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pentylene glycol 7, disodium EDTA 0.05,  
polyperfluoroethoxymethoxydifluoroethyl PEG phosphate (Fomblin HC/P2-1000)  
0.5, Camelia sinensis extract (Greenselect) 0.5, Vitis vinifera extract  
(Leucoselect) 0.5, and water to 100%, resp.

IC ICM A61K047-00

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 63

IT Polyoxyalkylenes, uses

RL: MOA (Modifier or additive use); USES (Uses)

(perfluoro, phosphates; cosmetic and/or dermatol. compns.  
containing polyphenols stabilized by perfluoropolyether  
phosphates)

IT Fluoropolymers, uses

RL: MOA (Modifier or additive use); USES (Uses)

(polyoxyalkylene-, perfluoro, phosphates; cosmetic and/or  
dermatol. compns. containing polyphenols stabilized by perfluoropolyether  
phosphates)

IT 50-81-7, Ascorbic acid, biological studies 127-40-2,

Lutein 127-40-2D, Xanthophyll, derivs. 502-65-8,

Lycopene 1406-18-4, Vitamin E 11103-57-4, Vitamin A

222838-60-0, Leucoselect 324519-76-8, Fomblin HC/P

2-1000 639001-45-9, Greenselect

RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);  
USES (Uses)

(cosmetic and/or dermatol. compns. containing polyphenols stabilized by  
perfluoropolyether phosphates)

IT 50-81-7, Ascorbic acid, biological studies 127-40-2,

Lutein 127-40-2D, Xanthophyll, derivs. 502-65-8,

Lycopene 1406-18-4, Vitamin E 11103-57-4, Vitamin A

222838-60-0, Leucoselect 324519-76-8, Fomblin HC/P

2-1000 639001-45-9, Greenselect

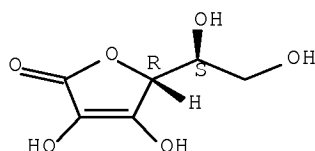
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);  
USES (Uses)

(cosmetic and/or dermatol. compns. containing polyphenols stabilized by  
perfluoropolyether phosphates)

RN 50-81-7 ZCAPLUS

CN L-Ascorbic acid (CA INDEX NAME)

Absolute stereochemistry.

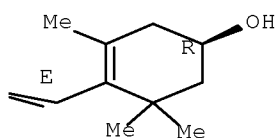
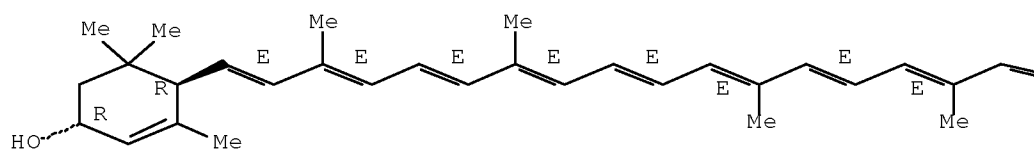


RN 127-40-2 ZCAPLUS

CN  $\beta$ , $\epsilon$ -Carotene-3,3'-diol, (3R,3'R,6'R)- (CA INDEX NAME)

Absolute stereochemistry.

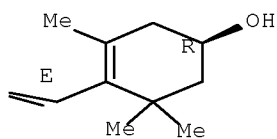
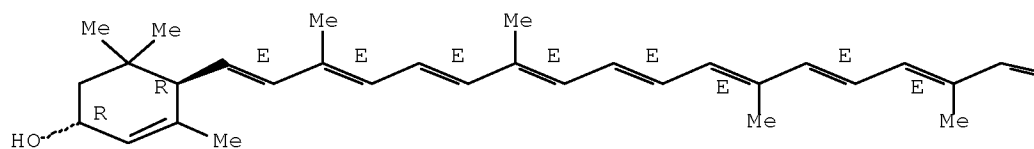
Double bond geometry as shown.



RN 127-40-2 ZCAPLUS

CN  $\beta,\epsilon$ -Carotene-3,3'-diol, (3R,3'R,6'R)- (CA INDEX NAME)

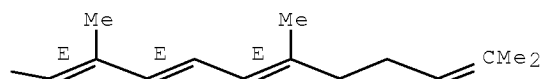
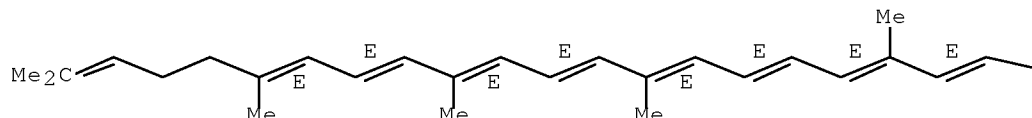
Absolute stereochemistry.  
Double bond geometry as shown.



RN 502-65-8 ZCAPLUS

CN  $\psi,\psi$ -Carotene (CA INDEX NAME)

Double bond geometry as shown.



RN 1406-18-4 ZCAPLUS  
CN Vitamin E (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 11103-57-4 ZCAPLUS  
CN Vitamin A (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 222838-60-0 ZCAPLUS  
CN Leucoselect (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 324519-76-8 ZCAPLUS  
CN Fomblin HC/P 2-1000 (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 639001-45-9 ZCAPLUS  
CN Greenselect (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 2 OF 8 ZCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2007:367896 ZCAPLUS Full-text  
DOCUMENT NUMBER: 146:322882  
TITLE: Cosmetic formulation in the form of a fluid emulsion  
INVENTOR(S): Fanin, Giorgio  
PATENT ASSIGNEE(S): Italy  
SOURCE: Ital. Appl., 13pp.  
CODEN: ITXXCZ  
DOCUMENT TYPE: Patent  
LANGUAGE: Italian  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IT 2001MI1224	A1	20021209	IT 2001-MI1224	20010608
PRIORITY APPLN. INFO.:			IT 2001-MI1224	20010608

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AB A cosmetic formulation in the form of a fluid oil-in-water emulsion free of preservatives contains 5-15% vitamin E or a derivative thereof, 4,4-6.6% p/p of a mixture of pentyleneglycol/capryloylglycine 10:1 (wt/wt).

IC ICM A61K007-00

CC 62-4 (Essential Oils and Cosmetics)

IT 58-95-7, Vitamin e acetate 60-33-3, Linoleic acid, biological studies 64-19-7, Acetic acid, biological studies 79-09-4, Propionic acid, biological studies 110-15-6, Succinic acid, biological studies 111-29-5, Pentyleneglycol 471-34-1, Calcium carbonate, biological studies 546-93-0, Magnesium carbonate 1314-13-2, Zinc oxide, biological studies ~~1406-18-4~~, Vitamin E ~~1406-18-4D~~, Vitamin E, derivs. 7727-43-7, Barium sulfate 13463-67-7, Titanium dioxide, biological studies 14246-53-8, Capryloylglycine

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(cosmetic formulation in the form of a fluid emulsion)

IT ~~1406-18-4~~, Vitamin E ~~1406-18-4D~~, Vitamin E, derivs.

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(cosmetic formulation in the form of a fluid emulsion)

RN 1406-18-4 ZCAPLUS

CN Vitamin E (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 1406-18-4 ZCAPLUS

CN Vitamin E (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L75 ANSWER 3 OF 8 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:101054 ZCAPLUS Full-text

DOCUMENT NUMBER: 134:152709

TITLE: A device for spray dispensing a composition for topical application comprising vitamin E and essential fatty acids

INVENTOR(S): Panin, Giorgio

PATENT ASSIGNEE(S): Italy

SOURCE: PCT Int. Appl., 15 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001009000	A1	20010208	WO 2000-EP7168	20000726
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
IT 99MI1747	A1	20010205	IT 1999-MI1747	19990803
CA 2379776	A1	20010208	CA 2000-2379776	20000726
EP 1200317	A1	20020502	EP 2000-947999	20000726
EP 1200317	B1	20030618		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			



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JP 2003506116	T	20030218	JP 2001-514212	20000726
AT 243146	T	20030715	AT 2000-947999	20000726
ES 2200897	T3	20040316	ES 2000-947999	20000726
AU 773768	B2	20040603	AU 2000-61600	20000726
PRIORITY APPLN. INFO.:			IT 1999-MI1747	A 19990803
			WO 2000-EP7168	W 20000726

AB Disclosed is a device for spray dispensing a composition for topical application comprising a collapsible container (1) in turn enclosed in a spray bomb filled with a pressurized fluid, wherein said composition comprises: (a) one or more volatile silicones, (b) at least one component chosen among essential fatty acids, polyunsatd.  $\Omega$ -6 or  $\Omega$ -3 fatty acids and oils that contain them and (c) vitamin E. A composition containing vitamin E 20, grape seed oil 10, ascorbyl palmitate 1, coenzyme Q10 0.1, lipoic acid 0.1, retinol palmitate 0.1, and pentamer cyclomethicone q.s. to 100 % was formulated and introduced into a collapsible container under a flow of nitrogen.

IC ICM B65D077-06

ICS A61K007-48; A61K007-00; B65D083-14

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 62

IT 79-81-2, Retinol palmitate 107-46-0, Hexamethyldisiloxane 137-66-6, Ascorbyl palmitate 541-02-6, Pentacyclomethicone 556-67-2, Tetracyclomethicone ~~1406-18-4~~, Vitamin E 324522-36-3, Aperoxid TLA

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(device for spray dispensing a composition for topical application comprising volatile silicones and vitamin E and fatty acid-containing oils)

IT ~~50-81-7~~, Vitamin C, biological studies 68-26-8, Vitamin A 303-98-0, Coenzyme Q10 1200-22-2, Lipoic acid

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(device for spray dispensing a composition for topical application comprising volatile silicones and vitamin E and fatty acid-containing oils and other components)

IT ~~1406-18-4~~, Vitamin E

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(device for spray dispensing a composition for topical application comprising volatile silicones and vitamin E and fatty acid-containing oils)

RN 1406-18-4 ZCAPLUS

CN Vitamin E (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT ~~50-81-7~~, Vitamin C, biological studies

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

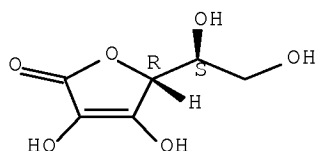
(device for spray dispensing a composition for topical application comprising volatile silicones and vitamin E and fatty acid-containing oils and other components)

RN 50-81-7 ZCAPLUS

CN L-Ascorbic acid (CA INDEX NAME)

Absolute stereochemistry.

10/579814



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 4 OF 8 ZCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2002:485012 ZCAPLUS Full-text  
DOCUMENT NUMBER: 137:24360  
TITLE: Spray apparatus for sprinkling vitamin E  
INVENTOR(S): Panin, Giorgio  
PATENT ASSIGNEE(S): Italy  
SOURCE: Ital. Appl., 11 pp.  
CODEN: ITXXCZ  
DOCUMENT TYPE: Patent  
LANGUAGE: Italian  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
IT 99MI1876	A1	20010306	IT 1999-MI1876	19990906

PRIORITY APPLN. INFO.: IT 1999-MI1876 19990906

AB The invention involves a spray apparatus for the topical application of vitamin E. The apparatus is comprised of a spray bottle with an irrigating valve, containing vitamin E and a propellant fluid (i.e., propane, butane, nitrogen, carbonic anhydride or nitrogen oxide) under pressure, in the absence of oxygen or air.

IC ICM A61J003-00

CC 63-6 (Pharmaceuticals)  
Section cross-reference(s): 62

IT ~~1406-18-4~~, Vitamin E  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(spray apparatus for topical application of vitamin E)

IT ~~1406-18-4~~, Vitamin E  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(spray apparatus for topical application of vitamin E)

RN 1406-18-4 ZCAPLUS

CN Vitamin E (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L75 ANSWER 5 OF 8 ZCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2002:149022 ZCAPLUS Full-text  
DOCUMENT NUMBER: 136:172463  
TITLE: Personal-hygiene detergent composition containing a high amount of vitamin E or its derivatives  
INVENTOR(S): Panin, Giorgio  
PATENT ASSIGNEE(S): Italy  
SOURCE: Fr. Demande, 12 pp.  
CODEN: FRXXBL  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1

10/579814

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2806909	A3	20011005	FR 2000-3937	20000329
FR 2806909	B3	20020322		
NL 1014778	C1	20011002	NL 2000-1014778	20000329
BE 1013366	A6	20011204	BE 2000-227	20000329
PRIORITY APPLN. INFO.:			FR 2000-3937	A 20000329

AB Personal-hygiene detergent compns., e.g. shampoo, contain a liquid detergent or a soap, comprising 2-97% of the surfactants and 3-25% of vitamin E or its derivs. A shampoo contained tocopheryl acetate 8.5, TEA lauryl sulfate 7.5, ammonium lauryl sulfate 4.0, laureth-2 4.0, cocamidopropylhydroxysultaine 3.0, glyceryl oleate 0.7, hydroxypropyl guar 0.7, wheat sodium cocoyl protein hydrolyzate 0.8, citric acid 0.6, propylene glycol 0.3, zinc pyrithione 0.3, perfume 0.2, sodium laureth sulfate 0.1, and water q.s. 100.0%.

IC ICM A61K007-50  
ICS A61K070-75; C11D009-22

CC 62-3 (Essential Oils and Cosmetics)

IT 58-95-7, Vitamin E acetate 69-72-7, Salicylic acid, biological studies 112-38-9, Undecylenic acid 139-96-8, TEA lauryl sulfate 1406-18-4, Vitamin E 1406-18-4D, Vitamin E, esters 2235-54-3, Ammonium lauryl sulfate 9004-82-4 13463-41-7, Zinc pyrithione 68890-66-4, Piroctone olamine 86880-59-3D, N-coco acyl derivs. 117829-17-1  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(personal-hygiene detergent composition containing high amount of vitamin E or its derivs.)

IT 1406-18-4, Vitamin E 1406-18-4D, Vitamin E, esters  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(personal-hygiene detergent composition containing high amount of vitamin E or its derivs.)

RN 1406-18-4 ZCAPLUS  
CN Vitamin E (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 1406-18-4 ZCAPLUS  
CN Vitamin E (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L75 ANSWER 6 OF 8 ZCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2000:53385 ZCAPLUS Full-text  
DOCUMENT NUMBER: 132:102861  
TITLE: Vitamin E and esters thereof for use in the topical treatment of mucosal pathologies  
INVENTOR(S): Fanin, Giorgio; Annunziata, Eleonora  
PATENT ASSIGNEE(S): Italy  
SOURCE: PCT Int. Appl., 35 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000002554	A1	20000120	WO 1999-IB1238	19990705

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2336990	A1	20000120	CA 1999-2336990	19990705
AU 9943858	A	20000201	AU 1999-43858	19990705
AU 762860	B2	20030710		
BR 9911945	A	20010327	BR 1999-11945	19990705
EP 1094807	A1	20010502	EP 1999-926687	19990705
EP 1094807	B1	20030423		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

TR 200100014	T2	20010621	TR 2001-14	19990705
HU 2001002781	A2	20011228	HU 2001-2781	19990705
HU 2001002781	A3	20020429		
TR 200103710	T2	20020621	TR 2001-3710	19990705
JP 2002520281	T	20020709	JP 2000-558814	19990705
AT 238051	T	20030515	AT 1999-926687	19990705
NZ 509129	A	20031031	NZ 1999-509129	19990705
ES 2196813	T3	20031216	ES 1999-926687	19990705
RU 2221561	C2	20040120	RU 2001-101122	19990705
CN 1135973	C	20040128	CN 1999-808432	19990705
SK 284464	B6	20050401	SK 2001-35	19990705
IN 2001CN00027	A	20050304	IN 2001-CN27	20010108
MX 2001000368	A	20020327	MX 2001-368	20010110

PRIORITY APPLN. INFO.: IT 1998-MI1586 A 19980710  
WO 1999-IB1238 W 19990705

OTHER SOURCE(S): MARPAT 132:102861

AB Vitamin E and esters thereof, in particular Vitamin E acetate, are used in the manufacture of a medicament for the topical treatment of mucosal pathol., e.g. dryness of the oral mucosa, dryness and itching of the vaginal, rectal, nasal and eye mucosa, aphthous ulcers, stomatitis, glossitis, keratoconjunctivitis, keratitis, keratalgia, corneal ulcers, corneal de-epithelization, encrusted rhinitis, nasal vestibulitis, epistaxis, atrophic vaginitis, cervical ectropion, follicular vulvitis, erythematous vulvitis, radiation-related vulvitis, genital herpes, pruritus ani, fecal incontinence, proctitis and ulcerous proctitis.

IC ICM A61K031-355

CC 1-12 (Pharmacology)

Section cross-reference(s): 63

IT ~~1406-18-4~~, Vitamin E ~~1406-18-4D~~, Vitamin E, esters

17407-37-3 52225-20-4 57448-94-9 146566-14-5

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(vitamin E and esters for topical treatment of mucosal pathologies)

IT ~~1406-18-4~~, Vitamin E ~~1406-18-4D~~, Vitamin E, esters

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(vitamin E and esters for topical treatment of mucosal pathologies)

RN ~~1406-18-4~~ ZCAPLUS

CN Vitamin E (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN ~~1406-18-4~~ ZCAPLUS

10/579814

CN Vitamin E (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 7 OF 8 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:600092 ZCAPLUS Full-text

DOCUMENT NUMBER: 137:129524

TITLE: Cleansing composition with high content of vitamin E  
and its derivatives

INVENTOR(S): Panin, Giorgio

PATENT ASSIGNEE(S): Italy

SOURCE: Ital., 12 pp.

CODEN: ITXXBY

DOCUMENT TYPE: Patent

LANGUAGE: Italian

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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IT 1302594	B1	20000929	IT 1998-MI2129	19981002
CH 694319	A5	20041130	CH 2000-569	20000324

PRIORITY APPLN. INFO.: IT 1998-MI2129 A 19981002

AB The detergent composition formulated as shampoo or liquid skin cleanser contains 2-50% one or more surfactants, 5-25% vitamin E and its esters in water, and one or more active ingredients selected from Zn pyrithione, piroctone olamine, undecanoic acid, and salicylic acid. A shampoo contained 8.5% tocopheryl acetate, 7.5% triethanolamine lauryl sulfate, 4.0% ammonium lauryl sulfate, 4.0% Laureth-2, 0.7% glyceryl oleate, 0.7% guar, 0.8%, 0.6% citric acid, 0.3% propylene glycol, 0.3% piroctone olamine, 0.3% Zn pyrithione, 0.2% perfume, 0.1% sodium Laureth sulfate, and water.

IC ICM C11D

CC 62-3 (Essential Oils and Cosmetics)

IT 52-51-7, 2-Bromo-2-nitropropane-1,3-diol 57-55-6, Propylene glycol, biological studies 58-95-7, Tocopheryl acetate 77-92-9, Citric acid, biological studies 112-37-8, Undecanoic acid 139-96-8, Triethanolamine lauryl sulfate 1406-18-4, Vitamin E 2235-54-3, Ammonium lauryl sulfate 9000-30-0, Guar 9002-92-0, Laureth-2 9004-82-4, Sodium Laureth sulfate 9005-64-5, Polysorbate 20 13463-41-7, Zinc pyrithione 25496-72-4, Glyceryl oleate 68890-66-4, Piroctone olamine 86880-59-3D, 3-[(3-Aminopropyl)dimethylammonio]-2-hydroxypropanesulfonate, N-cocoacyl derivs.

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(shampoo and cleansing composition with high content of vitamin E and its esters and detergents)

IT 1406-18-4, Vitamin E

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(shampoo and cleansing composition with high content of vitamin E and its esters and detergents)

RN 1406-18-4 ZCAPLUS

CN Vitamin E (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L75 ANSWER 8 OF 8 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:180787 ZCAPLUS Full-text

DOCUMENT NUMBER: 128:248594

ORIGINAL REFERENCE NO.: 128:49129a, 49132a

10/579814

TITLE: Vitamin E and its esters as lipophilic bases for topical formulations  
 INVENTOR(S): Panin, Giorgio  
 PATENT ASSIGNEE(S): Panin, Giorgio, Italy  
 SOURCE: PCT Int. Appl., 23 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9810793	A1	19980319	WO 1997-EP4946	19970910
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2265815	A1	19980319	CA 1997-2265815	19970910
CA 2265815	C	20071204		
AU 9745545	A	19980402	AU 1997-45545	19970910
AU 718789	B2	20000420		
BR 9712020	A	19990824	BR 1997-12020	19970910
EP 938339	A1	19990901	EP 1997-943856	19970910
EP 938339	B1	20020710		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
JP 2001500145	T	20010109	JP 1998-513251	19970910
AT 220334	T	20020715	AT 1997-943856	19970910
ES 2180065	T3	20030201	ES 1997-943856	19970910
PRIORITY APPLN. INFO.:				
			IT 1996-MI1865	A 19960911
			WO 1997-EP4946	W 19970910

AB A formulation for topical use comprising a lipophilic phase which includes vitamin E or a pharmaceutically acceptable ester thereof, preferably vitamin E acetate, amongst its components, generally in an amount of from 20 to 100 %, preferably from 51 to 100 %, based on the weight of the lipophilic phase; the later phase may also contain animal, vegetable or synthetic fats and oils or mineral oils. The formulation may be in the form of ointments, creams, gels, or pastes. The vitamin E acetate is used as an excipient or as a component of excipients for pharmaceutical formulations for topical use.

IC ICM A61K047-22  
 ICS A61K047-44

CC 63-6 (Pharmaceuticals)

IT 58-95-7, Vitamin E acetate ~~1406-18-4~~, Vitamin E 31692-79-2,

Dimethiconol 52225-20-4, DL- $\alpha$ -Tocopherol acetate

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(vitamin E and its esters as lipophilic bases for topical compns.)

IT ~~1406-18-4~~, Vitamin E

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(vitamin E and its esters as lipophilic bases for topical compns.)

RN 1406-18-4 ZCAPLUS

CN Vitamin E (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



=> file registry

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DICTIONARY FILE UPDATES: 21 MAY 2009 HIGHEST RN 1148104-81-7

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TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

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<http://www.cas.org/support/stngen/stdoc/properties.html>

=> file zcplus

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FILE COVERS 1907 - 22 May 2009 VOL 150 ISS 22  
FILE LAST UPDATED: 21 May 2009 (20090521/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2009

ZCAplus now includes complete International Patent Classification (IPC)  
reclassification data for the third quarter of 2008.

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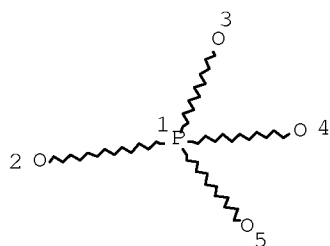
This file contains CAS Registry Numbers for easy and accurate  
substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'ZCAPLUS' FILE



10/579814

=> d stat que L30  
L13 STR



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NSPEC	IS C	AT	4
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CONNECT	IS E1	RC AT	3
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MLEVEL	IS CLASS	AT	1 2 3 4 5
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GRAPH ATTRIBUTES:

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NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L14 STR



NODE ATTRIBUTES:

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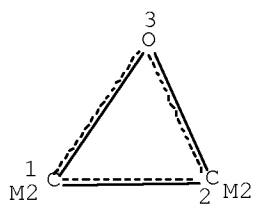
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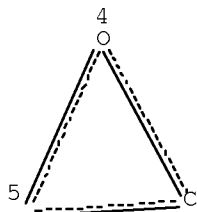
STEREO ATTRIBUTES: NONE

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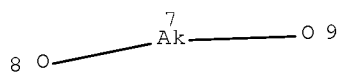
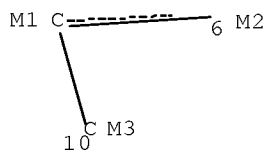
10/579814



G1 11



Page 1-A



Page 2-A

VAR G1=3/4/8

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NSPEC	IS C	AT	10
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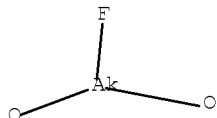
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RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE  
L19 STR

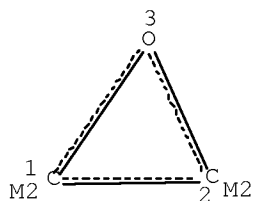
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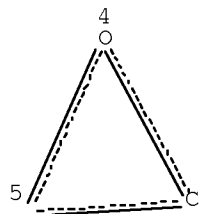


Structure attributes must be viewed using STN Express query preparation.  
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=> d stat que L35  
L15 STR



G1 11



10/579814



Page 2-A

VAR G1=3/4/8

NODE ATTRIBUTES:

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GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 11

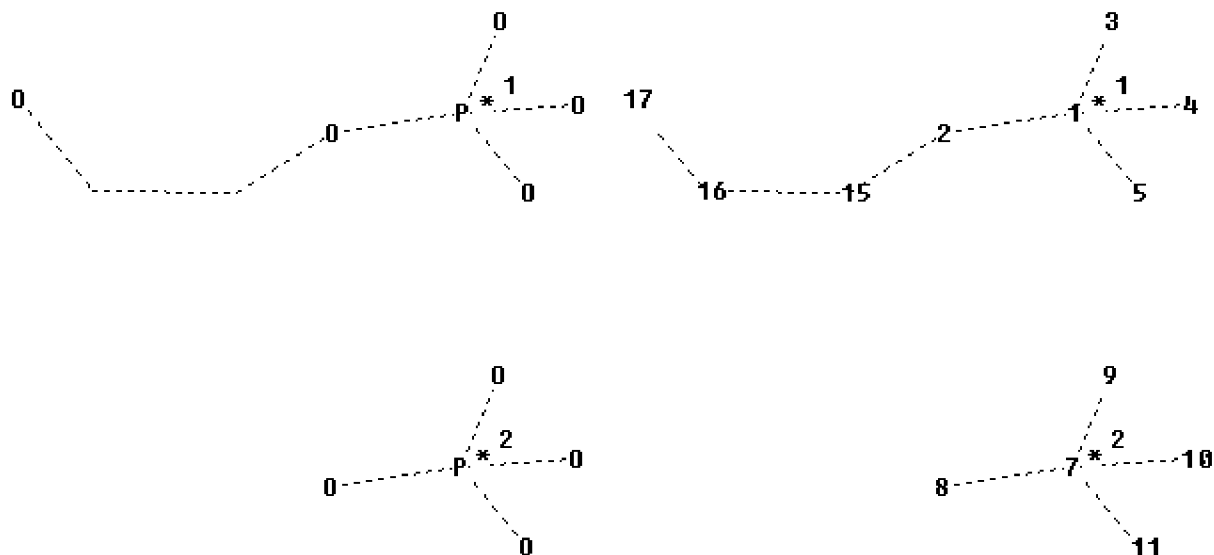
STEREO ATTRIBUTES: NONE

L19 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

Uploading L19.str



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chain bonds :
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exact/norm bonds :
1-2  1-3  1-4  1-5  2-15  7-8  7-9  7-10  7-11  15-16  16-17

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Connectivity :

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8:1 E exact RC ring/chain  9:1 E exact RC ring/chain  10:1 E exact RC ring/chain
11:1 E exact RC ring/chain

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Match level :

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11:CLASS 15:CLASS 16:CLASS 17:CLASS 19:CLASS

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L32

STR

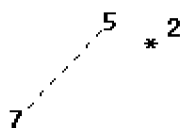
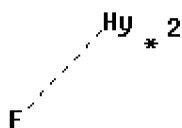
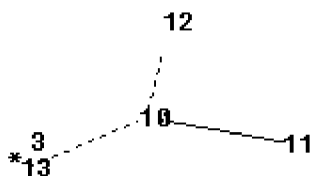
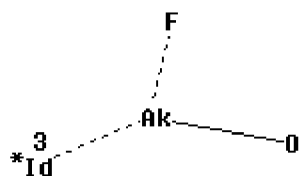
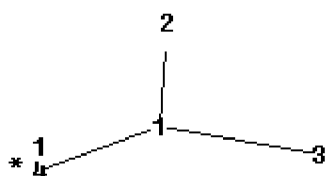
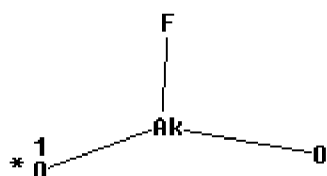
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

10/579814

Structure attributes must be viewed using STN Express query preparation.  
Uploading L32.str

G<sub>1</sub>

16



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chain bonds :  
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exact/norm bonds :  
1-2 5-7 10-12 10-13  
exact bonds :  
1-3 1-4 10-11

G1:[\*1],[\*2],[\*3]

Match level :  
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Element Count :  
Node 5: Limited  
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S,S0  
N,N0

10/579814

P,P0  
Si,Si0

L34 10 SEA FILE=REGISTRY SSS FUL L19 AND L15 AND L32  
L35 5 SEA FILE=ZCAPLUS SPE=ON ABB=ON PLU=ON L34

=> s L30 or L35  
L76 5 L30 OR L35

=> d ibib abs hitstr L76 1-5

L76 ANSWER 1 OF 5 ZCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2008:1508040 ZCAPLUS Full-text  
DOCUMENT NUMBER: 150:57985  
TITLE: Fluorinated acrylic polymer compositions for surface treatment  
INVENTOR(S): Dams, Rudolf J.; Martin, Steven J.; Pellerite, Mark J.; Jariwala, Chetan P.; Clark, Gregory D.; Petrin, Jason T.  
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA  
SOURCE: PCT Int. Appl., 53pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2008154279	A1	20081218	WO 2008-US65885	20080605
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: US 2007-942397P P 20070606

AB A composition comprises (a) at least one first divalent unit represented by the formula -CH<sub>2</sub>-CRR<sub>1</sub>-, where R<sub>1</sub> is -C(O)-O-X-Q-R<sub>f</sub>; R<sub>f</sub> is a perfluoropolyether group; Q is selected from a bond, -C(O)-N(R<sub>2</sub>)-, and -C(O)-O-; R and R<sub>2</sub> are each independently selected from hydrogen and C<sub>1</sub>-C<sub>4</sub>-alkyl; X is alkylene, arylalkylene, and alkylarylene, optionally interrupted by at least one ether linkage, and (b) at least one second divalent unit comprising a pendant Z group or a monovalent unit comprising a thioether linkage and a terminal Z group, where each Z group is independently selected from -P(O)(OY)<sub>2</sub> and -O-P(O)(OY)<sub>2</sub>, where Y is selected from hydrogen, alkyl, trialkylsilyl, and a counter cation. Methods for producing the above composition and its use for

10/579814

treating metal, metal oxide, ceramic, stone and cementitious surfaces are also provided.

IT 1093110-95-2DP, trimethylsilyl-terminated 1093110-97-4P  
1093110-99-6P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (fluorinated acrylic polymer compns. for surface treatment)

RN 1093110-95-2 ZCAPLUS

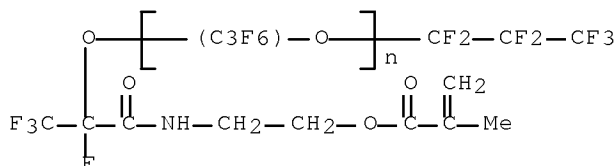
CN 2-Propenoic acid, 2-methyl-, 2-(phosphonooxy)ethyl ester, polymer with  $\alpha$ -(1,1,2,2,3,3,3-heptafluoropropyl)- $\omega$ -[1,2,2,2-tetrafluoro-1-[[[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl]amino]carbonyl]ethoxy]poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)], graft (CA INDEX NAME)

CM 1

CRN 630115-03-6

CMF (C3 F6 O)<sub>n</sub> C12 H10 F11 N O4

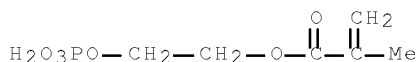
CCI IDS, PMS



CM 2

CRN 24599-21-1

CMF C6 H11 O6 P



RN 1093110-97-4 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[methyl[(1,1,2,2,3,3,4,4,4-nonafluorobutyl)sulfonyl]amino]ethyl ester, polymer with  $\alpha$ -(1,1,2,2,3,3,3-heptafluoropropyl)- $\omega$ -[1,2,2,2-tetrafluoro-1-[[[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl]amino]carbonyl]ethoxy]poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)], octadecyl 2-propenoate and 2-(phosphonooxy)ethyl 2-methyl-2-propenoate, graft, potassium salt (CA INDEX NAME)

CM 1

CRN 1093110-96-3

CMF (C21 H40 O2 . C11 H12 F9 N O4 S . C6 H11 O6 P . (C3 F6 O)<sub>n</sub> C12 H10 F11 N O4)x

CCI PMS



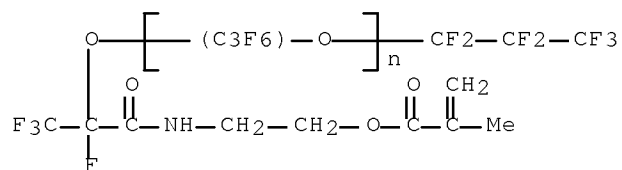
10/579814

CM 2

CRN 630115-03-6

CMF (C3 F6 O)<sub>n</sub> C12 H10 F11 N O4

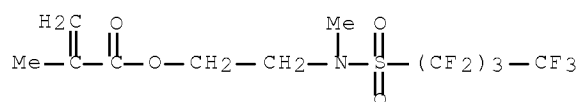
CCI IDS, PMS



CM 3

CRN 67584-59-2

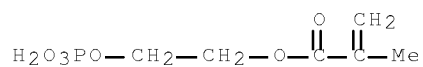
CMF C11 H12 F9 N O4 S



CM 4

CRN 24599-21-1

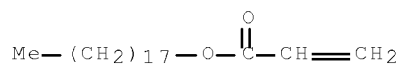
CMF C6 H11 O6 P



CM 5

CRN 4813-57-4

CMF C21 H40 O2



10/579814

RN 1093110-99-6 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(phosphonooxy)ethyl ester, polymer with  $\alpha$ -(1,1,2,2,3,3,3-heptafluoropropyl)- $\omega$ -[1,2,2,2-tetrafluoro-1-[[[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl]amino]carbonyl]ethoxy]poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)] and 2-[methyl[(1,1,2,2,3,3,4,4,4-nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate, graft, potassium salt (CA INDEX NAME)

CM 1

CRN 1093110-98-5

CMF (C10 H10 F9 N O4 S . C6 H11 O6 P . (C3 F6 O)<sub>n</sub> C12 H10 F11 N O4)<sub>x</sub>

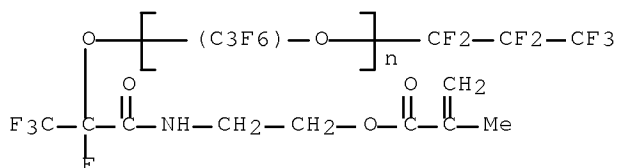
CCI PMS

CM 2

CRN 630115-03-6

CMF (C3 F6 O)<sub>n</sub> C12 H10 F11 N O4

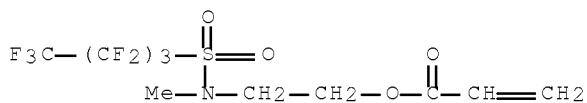
CCI IDS, PMS



CM 3

CRN 67584-55-8

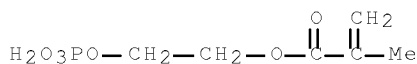
CMF C10 H10 F9 N O4 S



CM 4

CRN 24599-21-1

CMF C6 H11 O6 P



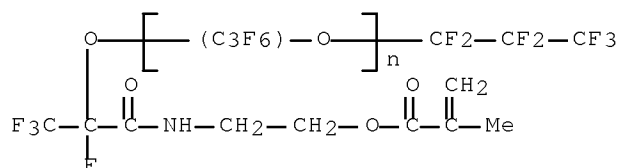
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IT      1093110--98--5P
        RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
        (Reactant or reagent)
        (fluorinated acrylic polymer compns. for surface treatment)
RN      1093110-98-5    ZCAPLUS
CN      2-Propenoic acid, 2-methyl-, 2-(phosphonooxy)ethyl ester, polymer with
         $\alpha$ -(1,1,2,2,3,3,3-heptafluoropropyl)- $\omega$ -[1,2,2,2-tetrafluoro-1-
        [[2-[2-methyl-1-oxo-2-propen-1-
        yl)oxy]ethyl]amino]carbonyl]ethoxy]poly[oxy[trifluoro(trifluoromethyl)-1,2-
        ethanediyl]] and 2-[methyl[(1,1,2,2,3,3,4,4,4-
        nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate, graft (CA INDEX NAME)

CM      1

CRN     630115-03-6
CMF     (C3 F6 O)n C12 H10 F11 N O4
CCI     IDS, PMS

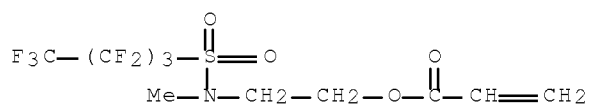
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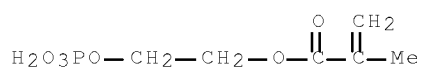
CM 2

CRN 67584-55-8

CMF C10 H10 F9 N O4 S



CM	3
CRN	24599-21-1
CMF	C6 H11 O6 P



27

L76 ANSWER 2 OF 5 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1083270 ZCAPLUS Full-text

DOCUMENT NUMBER: 144:23221

TITLE: New developments in the synthesis and characterization of phosphate esters of linear (per)fluoropolyether monofunctional and difunctional macromonomers

AUTHOR(S): Russo, Antonio; Tonelli, Claudio; Barchiesi, Emma

CORPORATE SOURCE: R and T Centre, Solvay-Solexis, Milan, 20021, Italy

SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (2005), 43(20), 4790-4804  
CODEN: JPACEC; ISSN: 0887-624X

PUBLISHER: John Wiley &amp; Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The synthesis of (per)fluoropolyether phosphate esters prepared by the reaction of phosphorus pentoxide and fluorinated alcs. was investigated. The reactivity strongly depends on the structure of the fluorinated alc., generally decreasing with increasing acidity. Moreover, the addition of a modulated amount of water to the starting fluorinated alc. allows the fine-tuning of the monoalkyl ester and dialkyl ester contents in the final products. Therefore, when difunctional perfluoropolyether macromonomers are considered, the polymerization degree can be varied, and phosphate oligoesters of different mol. wts. can be obtained in high yields, even if, as in this study, the synthesis is focused on low-mol.-weight oligomers. This easy control of the oligoester composition in the final product makes it possible to address the synthesis of phosphate oligoesters having a well-defined equivalent weight, which also depends on the average mol. weight of the starting alc. The full characterization of the products is made possible by the combination of different NMR techniques ( $^1\text{H}$ ,  $^{19}\text{F}$ ,  $^{31}\text{P}$ ,  $^{13}\text{C}$ , and two-dimensional NMR:  $^{31}\text{P}$ - $^1\text{H}$  and  $^{31}\text{P}$ - $^{13}\text{C}$ ). This synthetic route shows great potential and opens the way to a new family of interesting candidates for the treatment of different organic or inorg. substrates to impart phobic properties against both polar and apolar substances.

IT 870272-87-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(oligomeric; new developments in synthesis and NMR characterization of phosphate esters of (per)fluoropolyether monofunctional and difunctional macromonomers)

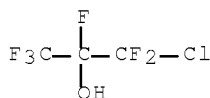
RN 870272-87-0 ZCAPLUS

CN Oxirane, trifluoro(trifluoromethyl)-, polymer with oxirane, mono[1-(chlorodifluoromethyl)-1,2,2,2-tetrafluoroethyl] ether, phosphate (9CI) (CA INDEX NAME)

CM 1

CRN 870272-86-9

CMF C3 H C1 F6 O

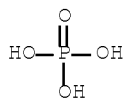


10/579814

CM 2

CRN 7664-38-2

CMF H3 O4 P



CM 3

CRN 31196-30-2

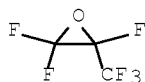
CMF (C3 F6 O . C2 H4 O)x

CCI PMS

CM 4

CRN 428-59-1

CMF C3 F6 O



CM 5

CRN 75-21-8

CMF C2 H4 O



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L76 ANSWER 3 OF 5 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:56548 ZCAPLUS Full-text

DOCUMENT NUMBER: 138:128919

TITLE: Silver halide photographic material for image-setter and its processing

INVENTOR(S): Aoki, Atsushi

PATENT ASSIGNEE(S): Konica Co., Japan

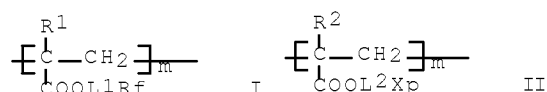
SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.

CODEN: JKXXAF

10/579814

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003021881	A	20030124	JP 2001-207753	20010709
PRIORITY APPLN. INFO.: GI			JP 2001-207753	20010709



AB The material contains I (Rf = ≥1 F-containing alkyl; L1, L2 = linkage; Xb = H, OH, or anionic, cationic, or amphoteric group; R1, R2 = H, lower alkyl; m, n = polymerization molar ratio; m + n = 1.0) and (1) a composite latex comprising inorg. particles and a hydrophobic polymer, (2) a polymer latex with an ethylenically unsatd. monomer repeating unit with an active methylene, or (3) a lubricant. It is developed for 10-25 s by an automatic developing apparatus or at 35-50 m-L replenishment rate for 610 mm × 508 mm. It showed improved abrasion resistance, reduced curling, high sensitivity, and high contrast.

IT 488857-28-9

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(photog. film containing acrylic polymer with fluoroalkyl group)

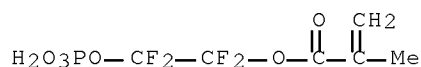
RN 488857-28-9 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[(pentadecafluoroheptyl)oxy]ethyl ester, polymer with 1,1,2,2-tetrafluoro-2-(phosphonooxy)ethyl 2-methyl-2-propenoate disodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 488857-27-8

CMF C6 H7 F4 O6 P . 2 Na

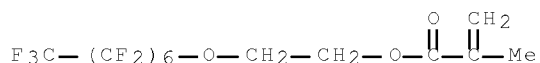


●2 Na

CM 2

CRN 321861-04-5

CMF C13 H9 F15 O3



L76 ANSWER 4 OF 5 ZCAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2002:802780 ZCAPLUS Full-text  
 DOCUMENT NUMBER: 137:317831  
 TITLE: Image formation method of silver halide full color  
 photographic film and digital imaging process using  
 image sensor  
 INVENTOR(S): Fukazawa, Fumie; Iwagaki, Masaru  
 PATENT ASSIGNEE(S): Konica Co., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 57 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002311542	A	20021023	JP 2001-113797	20010412
PRIORITY APPLN. INFO.:			JP 2001-113797	20010412
OTHER SOURCE(S):	MARPAT 137:317831			

AB The invention relates to an image formation method of a full color photog. material, wherein the photog. material contains a polymeric fluorosurfactant compound represented by  $-(\text{C}(\text{R}_1)(\text{COOL}_1\text{R}_f)\text{CH}_2)_m-(\text{C}(\text{R}_2)(\text{COOL}_2\text{X}_p)\text{CH}_2)_n-$  [ $\text{R}_f = \text{F}$ -containing alkyl;  $\text{L}_1, \text{L}_2 =$  single bond, connecting group;  $x = \text{H}$ , hydroxy, anionic group, cationic group, amphoteric group;  $\text{R}_1, \text{R}_2 = \text{H}$ , lower alkyl;  $m, n = \text{d.p.}; p \geq 1$ ] and a color development process is carried out for 95-120 s. The color developer contains a specified color developing agent(s) [7 Markush structures are given] and a compound  $\text{R}_1\text{-NR}_2\text{-OH}$  [ $\text{R}_1, \text{r}_2 = \text{C}_1\text{-3-alkyl}$ , alkoxy], the (bleach) fixing solution contains a specified compound(s) [4 Markush structure are given], the color developer shows a pH of  $\geq 10.5$ , and the final processing solution is free from an aldehyde compound

IT 443907-01-5

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(polymeric fluorosurfactant in full color photog. film for improving quick processability)

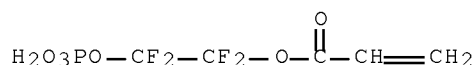
RN 443907-01-5 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[(pentadecafluoroheptyl)oxy]ethyl ester, polymer with 1,1,2,2-tetrafluoro-2-(phosphonooxy)ethyl 2-propenoate disodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 443907-00-4

CMF C5 H5 F4 O6 P . 2 Na

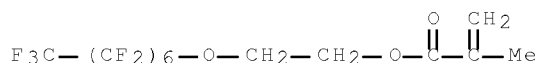


●2 Na

CM 2

CRN 321861-04-5

CMF C13 H9 F15 O3



L76 ANSWER 5 OF 5 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:570475 ZCAPLUS Full-text

DOCUMENT NUMBER: 137:132042

TITLE: Silver halide color photographic film containing fluorine-based surfactant and mono-dispersible matting agent

INVENTOR(S): Iwagaki, Masaru

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 32 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002214741	A	20020731	JP 2001-14241	20010123
PRIORITY APPLN. INFO.:			JP 2001-14241	20010123

AB The invention relates to a Ag halide photog. film containing a mono-dispersible matting agent in the outermost nonphotosensitive layer to reduced a torque required for unwinding the rolled photog. film from a magazine. The Ag halide color photog. film contains [CR1(COOL1Rf)CH2]m and [CR2(COOL2Rp)CH2]n (Rf = alkyl containing ≥1 F; L1,2 = bond; X = H, hydroxy, anionic group, cationic group, amphoteric group; R1,2 = H, lower alkyl; m, n = polymerization degree in mole ratio; m + n = 1.0; p ≥ 1) and a mono-dispersible matting agent in the outermost nonphotosensitive layer.

IT 443907-01-5

RL: TEM (Technical or engineered material use); USES (Uses)

(surfactant; silver halide color photog. film containing fluorine-based surfactant and mono-dispersible matting agent)

RN 443907-01-5 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[(pentadecafluoroheptyl)oxy]ethyl ester, polymer with 1,1,2,2-tetrafluoro-2-(phosphonooxy)ethyl 2-propenoate disodium salt (9CI) (CA INDEX NAME)

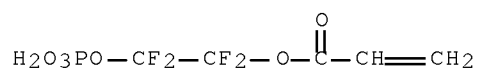


10/579814

CM 1

CRN 443907-00-4

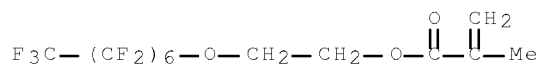
CMF C5 H5 F4 O6 P . 2 Na



CM 2

CRN 321861-04-5

CMF C13 H9 F15 O3



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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 22 May 2009 VOL 150 ISS 22
FILE LAST UPDATED: 21 May 2009 (20090521/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2009
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ZCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'ZCAPLUS' FILE

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L39      100560 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  FLUOROPOLYMER?/CW OR
          FLUORO RUBBER?/CW
L40      2708  SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L38 (L) ?FLUORO?/BI
L41      8146  SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L39 (L) (?POLYOXYALKYL
          ?/BI OR PEG?/BI OR POLYETHYLENE GLYCOL?/BI)
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L45      21    SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L43 AND L44
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L39      100560 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  FLUOROPOLYMER?/CW OR
          FLUORO RUBBER?/CW
L40      2708  SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L38 (L) ?FLUORO?/BI
L41      8146  SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L39 (L) (?POLYOXYALKYL
          ?/BI OR PEG?/BI OR POLYETHYLENE GLYCOL?/BI)
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L46      3     SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L42 AND DIPHOSPHAT?/BI
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L40	2708	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L38 (L) ?FLUORO?/BI
L41	8146	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L39 (L) (?POLYOXYALKYL ?/BI OR PEG?/BI OR POLYETHYLENE GLYCOL?/BI)
L42	1364	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L40 AND L41
L47	2	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L42 AND (POLYPHENOL?/B I OR POLY PHENOL?/BI)

=&gt; d stat que L54

L38	126993	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	POLYOXYALKYLENE?/CW
L39	100560	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	FLUOROPOLYMER?/CW OR FLUORO RUBBER?/CW
L40	2708	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L38 (L) ?FLUORO?/BI
L41	8146	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L39 (L) (?POLYOXYALKYL ?/BI OR PEG?/BI OR POLYETHYLENE GLYCOL?/BI)
L42	1364	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L40 AND L41
L48	87075	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	PHENOLIC RESIN?/BI
L49	10329	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	"PHENOL CONDENSATION PRODUCTS"/CT
L50	11904	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	"RESINOUS PRODUCTS"/CT
L51	3999	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	PHENOLS/CT (L) POLYMER?/BI
L52	35447	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	POLYPHENOL?/BI OR POLY PHENOL?/BI
L54	14	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L42 AND (L48 OR L49 OR L50 OR L51 OR L52)

=&gt; d stat que L66

L38	126993	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	POLYOXYALKYLENE?/CW
L39	100560	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	FLUOROPOLYMER?/CW OR FLUORO RUBBER?/CW
L40	2708	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L38 (L) ?FLUORO?/BI
L41	8146	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L39 (L) (?POLYOXYALKYL ?/BI OR PEG?/BI OR POLYETHYLENE GLYCOL?/BI)
L42	1364	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L40 AND L41
L43	68	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L40 (L) ?PHOSPHAT?/BI
L44	70	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L41 (L) ?PHOSPHAT?/BI
L45	21	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L43 AND L44
L46	3	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L42 AND DIPHOSPHAT?/BI
L47	2	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	L42 AND (POLYPHENOL?/B I OR POLY PHENOL?/BI)
L48	87075	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	PHENOLIC RESIN?/BI
L49	10329	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	"PHENOL CONDENSATION PRODUCTS"/CT
L50	11904	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	"RESINOUS PRODUCTS"/CT
L51	3999	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	PHENOLS/CT (L) POLYMER?/BI
L52	35447	SEA FILE=ZCAPLUS	SPE=ON	ABB=ON	PLU=ON	POLYPHENOL?/BI OR

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POLY PHENOL?/BI
L54      14 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L42 AND (L48 OR L49
OR L50 OR L51 OR L52)
L57      36 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L45 OR L46 OR L47 OR
L54
L58      TRANSFER  PLU=ON  L57 1- RN :      296 TERMS
L59      296 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  L58
L60      166 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  L59 AND PMS/CI
L61      82 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  L60 AND F/ELS
L62      29 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  L61 AND P/ELS
L66      4 SEA FILE=ZCAPLUS SPE=ON  ABB=ON  PLU=ON  L62

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=> s L45 or L46 or L47 or L54 or L66
L77      37 L45 OR L46 OR L47 OR L54 OR L66

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=> d ibib abs hitind hitstr L77 1-37

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L77 ANSWER 1 OF 37  ZCAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:      2007:564928  ZCAPLUS  Full-text
DOCUMENT NUMBER:      146:524567
TITLE:                Wellbore fluids for petroleum wells containing fluoro
and perfluoro polyoxyalkylenes and fluorosurfactants
INVENTOR(S):          Pasquier, David; Driancourt, Alain; Audibert, Annie
PATENT ASSIGNEE(S):   Institut Francais du Petrole, Fr.
SOURCE:               Eur. Pat. Appl., 10pp.
                      CODEN: EPXXDW
DOCUMENT TYPE:        Patent
LANGUAGE:             French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

```

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1788061	A1	20070523	EP 2006-291745	20061107
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
FR 2893626	A1	20070525	FR 2005-11694	20051118
FR 2893626	B1	20080104		
NO 2006005293	A	20070521	NO 2006-5293	20061117
US 20070123430	A1	20070531	US 2006-561094	20061117
PRIORITY APPLN. INFO.:			FR 2005-11694	A 20051118

AB Drilling fluids and well treatment fluids for petroleum wells in recovery and prospecting operations, with d. of 1800-2200 kg/m<sup>3</sup> at 20°, are composed of fluids containing fluorinated compds. and perfluoro compds., especially hydrofluoro-, fluorohalo-, and perfluoro polyoxyalkylenes, with mol. wts. of 1000-30,000 (preferably 1000-10,000) g/mol. Types of fluoro fluids are of general structures: (1) E-O-(CF(CF<sub>3</sub>)CF<sub>2</sub>O)<sub>m</sub>(CFXO)<sub>n</sub>-E', (2) C<sub>3</sub>F<sub>7</sub>O-(CF(CF<sub>3</sub>)CF<sub>2</sub>O)<sub>o</sub>-D, (3) C<sub>3</sub>F<sub>7</sub>O-(CF(CF<sub>3</sub>)CF<sub>2</sub>O)<sub>p</sub>-CF(CF<sub>3</sub>)<sub>2</sub>, (4) E-O-(CF(CF<sub>3</sub>)CF<sub>2</sub>O)<sub>q</sub>(C<sub>2</sub>F<sub>4</sub>O)<sub>4</sub>(CFX)<sub>x</sub>-E'. (5) E-O-(C<sub>2</sub>F<sub>4</sub>O)<sub>5</sub>(CF<sub>2</sub>O)<sub>u</sub>-E', (6) E-O-(CF<sub>2</sub>CF<sub>2</sub>CF<sub>2</sub>O)<sub>v</sub>-E', and (7) D-O-(CF<sub>2</sub>CF<sub>2</sub>O)<sub>z</sub>-D', in which E and E' = CF<sub>3</sub>, C<sub>2</sub>F<sub>5</sub>, or C<sub>3</sub>F<sub>7</sub>; D = C<sub>2</sub>F<sub>5</sub> or C<sub>3</sub>F<sub>7</sub>; X = F or CF<sub>3</sub>; m and n = 20-1000, with viscosity 10-4000 cSt; o, p, q, r, t, u, v, and z are a number to satisfy the above viscosity (with t/u ratio 0.1-5:1). The compns. also include ≥1 surfactants, such as: (1) perfluoro-C<sub>5</sub>-11-carboxylic, -sulfonic, and -phosphoric acids, (2) R<sub>f</sub>(CH<sub>2</sub>)(OC<sub>2</sub>H<sub>4</sub>)<sub>n</sub>OH (R<sub>f</sub> is a perfluoro, fluoro, or hydrofluoro chain, and n = ≥1); (3) nonionic fluorinated polyoxyethylene fluoroalkyl ethers, (4) mono- and dicarboxylic or disulfonic acids derived from perfluoro polyethers, and

corresponding salts, (5) perfluoro polyether phosphates or diphosphates, (6) perfluoro polyethers with 1, 2, or 3 hydrophobic chains, as cationic or anionic surfactants, and (7) ethoxylated fluoroalcs., fluorosulfonamides, or fluorocarboxamides.

CC 51-2 (Fossil Fuels, Derivatives, and Related Products)

IT Polyoxyalkylenes, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(fluorine-containing; wellbore fluids for petroleum wells containing fluoro and perfluoro polyoxyalkylenes and fluorosurfactants)

IT Polyoxyalkylenes, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(halo fluoro; wellbore fluids for petroleum wells containing fluoro and perfluoro polyoxyalkylenes and fluorosurfactants)

IT Polyoxyalkylenes, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(perfluoro, perfluoroalkyl group-terminated; wellbore fluids for petroleum wells containing fluoro and perfluoro polyoxyalkylenes and fluorosurfactants)

IT Carboxylic acids, uses

Polyoxyalkylenes, uses

Sulfonic acids, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(perfluoro; wellbore fluids for petroleum wells containing fluoro and perfluoro polyoxyalkylenes and fluorosurfactants)

IT Fluoropolymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-, perfluoro; wellbore fluids for petroleum wells containing fluoro and perfluoro polyoxyalkylenes and fluorosurfactants)

IT Fluoropolymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-, perfluoroalkyl group-terminated; wellbore fluids for petroleum wells containing fluoro and perfluoro polyoxyalkylenes and fluorosurfactants)

IT Fluoropolymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-; wellbore fluids for petroleum wells containing fluoro and perfluoro polyoxyalkylenes and fluorosurfactants)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 2 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:398112 ZCAPLUS Full-text

DOCUMENT NUMBER: 146:496113

TITLE: Electrochemistry and Electrocatalysis of Hemoglobin in Nafion/nano-CaCO<sub>3</sub> Film on a New Ionic Liquid BPPF6 Modified Carbon Paste Electrode

AUTHOR(S): Sun, Wei; Gao, Ruifang; Jiao, Kui

CORPORATE SOURCE: College of Chemistry and Molecular Engineering, Qingdao University of Science and Technology, Qingdao, 266042, Peop. Rep. China

SOURCE: Journal of Physical Chemistry B (2007), 111(17), 4560-4567

CODEN: JPCBFK; ISSN: 1520-6106

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Room temperature ionic liquid N-butylpyridinium hexafluorophosphate (BPPF6) was used as a binder to construct a new carbon ionic liquid electrode (CILE), which exhibited enhanced electrochem. behavior as compared with the traditional carbon paste electrode with paraffin. By using the CILE as the basal electrode, Hb was immobilized on the surface of the CILE with nano-CaCO<sub>3</sub> and Nafion film step by step. The Hb mol. in the film kept its native structure and showed good electrochem. behavior. In pH 7.0 Britton-Robinson (B-R) buffer solution, a pair of well-defined, quasi-reversible cyclic voltammetric peaks appeared with cathodic and anodic peak potentials located at -0.444 and -0.285 V (vs. SCE), resp., and the formal potential ( $E^{\circ}$ ) was at -0.365 V, which was the characteristic of Hb Fe(III)/Fe(II) redox couples. The formal potential of Hb shifted linearly to the increase of buffer pH with a slope of -50.6 mV pH<sup>-1</sup>, indicating that one electron transferred was accompanied with one proton transportation. UV-visible (UV-vis) and Fourier transform IR (FT-IR) spectroscopy studies showed that Hb immobilized in the Nafion/nano-CaCO<sub>3</sub> film still remained its native arrangement. The Hb modified electrode showed an excellent electrocatalytic behavior to the reduction of H<sub>2</sub>O<sub>2</sub>, trichloroacetic acid (TCA), and NaNO<sub>2</sub>.

CC 9-1 (Biochemical Methods)

IT **Polyoxyalkylenes**, analysis

RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); TEM (Technical or engineered material use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
(fluorine- and sulfo-containing, ionomers; electrochem. and electrocatalysis of Hb in Nafion/nano-CaCO<sub>3</sub> film on new ionic liquid N-butylpyridinium hexafluorophosphate-modified carbon paste electrode)

IT **Fluoropolymers**, analysis

RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); TEM (Technical or engineered material use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
(polyoxyalkylene-, sulfo-containing, ionomers; electrochem. and electrocatalysis of Hb in Nafion/nano-CaCO<sub>3</sub> film on new ionic liquid N-butylpyridinium hexafluorophosphate-modified carbon paste electrode)

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 3 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:88243 ZCAPLUS Full-text

DOCUMENT NUMBER: 146:172302

TITLE: Coating agent and metal mask

INVENTOR(S): Ino, Yuji

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 25pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007011567	A1	20070125	WO 2006-US26698	20060711
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US,			

UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
 IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM

JP 2007023160 A 20070201 JP 2005-207389 20050715

PRIORITY APPLN. INFO.: JP 2005-207389 A 20050715

AB A coating agent used in the formation of a thin film on a surface of a metal mask, formed from a metallic material, having opening portions of the predetd. pattern, in which said coating agent comprises a fluorine-containing phosphonic acid compound containing fluorine atoms in a mol. thereof, and a phosphonic acid of the fluorine containing phosphonic acid compound can be bonded to a metal atom of the metal mask to form a salt thereof.

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 76

IT 845734-25-0P

RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (coating agent and metal mask comprises fluorine-containing phosphonic acid compound for printed circuit boards)

IT 845734-26-1 920508-29-8

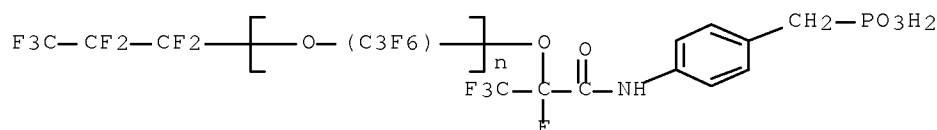
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (coating agent and metal mask comprises fluorine-containing phosphonic acid compound for printed circuit boards)

IT 845734-25-0P

RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (coating agent and metal mask comprises fluorine-containing phosphonic acid compound for printed circuit boards)

RN 845734-25-0 ZCAPLUS

CN Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)],  
 $\alpha$ -(1,1,2,2,3,3,3-heptafluoropropyl)- $\omega$ -[1,2,2,2-tetrafluoro-1-  
 [[4-(phosphonomethyl)phenyl]amino]carbonyl]ethoxy]- (CA INDEX NAME)

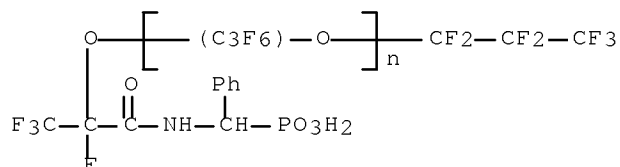


IT 845734-26-1

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (coating agent and metal mask comprises fluorine-containing phosphonic acid compound for printed circuit boards)

RN 845734-26-1 ZCAPLUS

CN Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)],  
 $\alpha$ -(1,1,2,2,3,3,3-heptafluoropropyl)- $\omega$ -[1,2,2,2-tetrafluoro-1-  
 [(phenylphosphonomethyl)amino]carbonyl]ethoxy]- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 4 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2007:61134 ZCAPLUS Full-text  
DOCUMENT NUMBER: 146:144398  
TITLE: Aqueous dispersions containing carboxyalkyl cellulose  
esters for coatings  
INVENTOR(S): Obie, Ronald  
PATENT ASSIGNEE(S): Wood Coatings Research Group, Inc., USA  
SOURCE: PCT Int. Appl., 75pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.		KIND	DATE	APPLICATION NO.		DATE	
WO 2007008959		A2	20070118	WO 2006-US27012		20060711	
WO 2007008959		A3	20070412				
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW						
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA						

PRIORITY APPLN. INFO.: US 2005-697538P P 20050711

AB Aqueous dispersions with high dispersion stability, useful as coatings, contain carboxyalkyl cellulose esters and combinations of fluorosurfactants (such as fluoropolyoxetanes and fluoroaliph. polymeric esters), hydrophobic materials, water-dispersible resins, C-11 ketones, and other surfactants. A typical dispersion was prepared by mixing a solution containing 2-butoxyethanol 210.89, water 28.38, and CM-cellulose acetate butyrate 60.73 g with Kesolv 184 (C-11 ketone) 4.78, triethanolamine 1.51, Polyfox PE-151N 29.8, Flexipel S22WS 14.9, and water 113.75.

CC 42-10 (Coatings, Inks, and Related Products)

IT ~~Polyoxyalkylenes~~, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(fluorine-containing, ~~fluorosurfactant~~; aqueous dispersions containing carboxyalkyl cellulose esters and hydrophobic materials for waterproof coatings)



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IT Acrylic polymers, uses  
Aminoplasts  
Fats and Glyceridic oils, uses  
Fatty acids, uses  
Oils  
Petroleum resins  
Phenolic resins, uses  
Polyesters, uses  
Polyethers, uses  
Polyolefins  
Polyvinyl butyrals  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(hydrophobic component; aqueous dispersions containing carboxyalkyl cellulose esters and hydrophobic materials for waterproof coatings)

IT Fluoropolymers, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-, fluorosurfactant; aqueous dispersions containing carboxyalkyl cellulose esters and hydrophobic materials for waterproof coatings)

L77 ANSWER 5 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2006:1147796 ZCAPLUS Full-text  
DOCUMENT NUMBER: 145:456469  
TITLE: Water-free offset printing inks  
INVENTOR(S): Kakiki, Shoichi  
PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
JP 2006298948	A	20061102	JP 2005-117789	20050415
PRIORITY APPLN. INFO.:			JP 2005-117789	20050415

AB The inks comprise perfluoro polyether oils with weight-average mol. weight 500-20,000. The inks also contain binders selected among rosin-modified phenolic resins, alkyd resins, and petroleum resins. Images obtained from the inks showed high gloss, adhesion, and contrast.

CC 42-12 (Coatings, Inks, and Related Products)

IT Polyoxyalkylenes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(perfluoro; water-free offset printing inks with high adhesion and gloss)

IT Fluoropolymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-, perfluoro; water-free offset printing inks with high adhesion and gloss)

IT Phenolic resins, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(rosin-modified, binders; water-free offset printing inks with high adhesion and gloss)

L77 ANSWER 6 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2006:299086 ZCAPLUS Full-text

10/579814

DOCUMENT NUMBER: 144:333990  
TITLE: Phosphate removal in producing perfluoropolyether-type lubricating oils for magnetic disk recording medium  
INVENTOR(S): Hara, Kota; Shimokawa, Koichi; Suzuki, Kota  
PATENT ASSIGNEE(S): Hoya Corporation, Japan  
SOURCE: U.S. Pat. Appl. Publ., 12 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 20060068229	A1	20060330	US 2005-234083	20050926
US 7531485	B2	20090512		
JP 2006089663	A	20060406	JP 2004-278892	20040927
CN 1754952	A	20060405	CN 2005-10107545	20050927
SG 121177	A1	20060426	SG 2005-6167	20050927
PRIORITY APPLN. INFO.:			JP 2004-278892	A 20040927
AB	A lubricant, including a lubrication layer, for magnetic disk (recording devices) is prepared in a step that involves a removal step of removing a phosphorus-containing compound from the lubricant raw material. The phosphorus-containing compound that is removed is preferably traces of phosphate (PO <sub>4</sub> <sup>3-</sup> ), typically by using a zeolite with effective pore size 0.3-1.0 nm, which is followed by removal of the zeolite from the purified raw material by mol. distillation. The lubricant raw material is preferably a fluoropolyether or fluoropolyoxyalkylene, with 4 hydroxyl groups per mol.			
INCL	428833100; 428833500; 427127000; 427345000			
CC	51-8 (Fossil Fuels, Derivatives, and Related Products) Section cross-reference(s): 38			
IT	Polyoxyalkylenes, uses RL: PUR (Purification or recovery); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (perfluoro; phosphate removal in producing perfluoropolyether-type lubricating oils for magnetic disk recording medium)			
IT	Fluoropolymers, uses RL: PUR (Purification or recovery); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyoxyalkylene-, perfluoro; phosphate removal in producing perfluoropolyether-type lubricating oils for magnetic disk recording medium)			
REFERENCE COUNT:	10	THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L77 ANSWER 7 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2006:190270 ZCAPLUS Full-text  
DOCUMENT NUMBER: 144:263607  
TITLE: Protective coating materials for chemically amplified resist layers for electron beam or EUV lithography, laminates using them, and resist pattern formation using them  
INVENTOR(S): Hirayama, Hiroshi; Shiono, Taiju; Haneda, Hideo  
PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1

10/579814

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE -----
JP 2006058739	A	20060302	JP 2004-242093	20040823
PRIORITY APPLN. INFO.:			JP 2004-242093	20040823

OTHER SOURCE(S): MARPAT 144:263607

AB The method contains forming resist layers on substrates, applying the materials containing F-containing polymers dissolved in organic solvents on the layers, exposing the layers selectively with electron beam or EUV through the coatings, removing the coatings after post-exposure baking, and developing the resist layers, thus preventing contamination of the resist layers with basic substances, e.g., amines, in surroundings and giving resist patterns with high sensitivity and resolution

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 42

ST chem amplified resist protection film fluoropolymer; EUV lithog resist gas barrier coating; electron beam resist polyphenol contamination prevention

IT Polyoxyalkylenes, processes  
RL: REM (Removal or disposal); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(perfluoro, protective film; gas-barrier fluoropolymer coatings for protecting chemical amplified resist layers during electron beam or EUV lithog.)

IT Fluoropolymers, processes  
RL: REM (Removal or disposal); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(polyoxyalkylene-, perfluoro, protective film; gas-barrier fluoropolymer coatings for protecting chemical amplified resist layers during electron beam or EUV lithog.)

IT 109-92-2D, Ethyl vinyl ether, reaction products with polyphenol  
231280-32-3D, ethoxyethyl-protected  
RL: TEM (Technical or engineered material use); USES (Uses)  
(resist; gas-barrier fluoropolymer coatings for protecting chemical amplified resist layers during electron beam or EUV lithog.)

L77 ANSWER 8 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1083270 ZCAPLUS Full-text

DOCUMENT NUMBER: 144:23221

TITLE: New developments in the synthesis and characterization of phosphate esters of linear (per)fluoropolyether monofunctional and difunctional macromonomers

AUTHOR(S): Russo, Antonio; Tonelli, Claudio; Barchiesi, Emma

CORPORATE SOURCE: R and T Centre, Solvay-Solexis, Milan, 20021, Italy

SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (2005), 43(20), 4790-4804  
CODEN: JPACEC; ISSN: 0887-624X

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The synthesis of (per)fluoropolyether phosphate esters prepared by the reaction of phosphorus pentoxide and fluorinated alcs. was investigated. The reactivity strongly depends on the structure of the fluorinated alc., generally decreasing with increasing acidity. Moreover, the addition of a modulated amount of water to the starting fluorinated alc. allows the fine-tuning of the monoalkyl ester and dialkyl ester contents in the final products. Therefore, when difunctional perfluoropolyether macromonomers are considered, the polymerization degree can be varied, and phosphate oligoesters of different mol. wts. can be obtained in high yields, even if, as in this

study, the synthesis is focused on low-mol.-weight oligomers. This easy control of the oligoester composition in the final product makes it possible to address the synthesis of phosphate oligoesters having a well-defined equivalent weight, which also depends on the average mol. weight of the starting alc. The full characterization of the products is made possible by the combination of different NMR techniques ( $^1\text{H}$ ,  $^{19}\text{F}$ ,  $^{31}\text{P}$ ,  $^{13}\text{C}$ , and two-dimensional NMR:  $^{31}\text{P}$ - $^1\text{H}$  and  $^{31}\text{P}$ - $^{13}\text{C}$ ). This synthetic route shows great potential and opens the way to a new family of interesting candidates for the treatment of different organic or inorg. substrates to impart phobic properties against both polar and apolar substances.

CC 35-8 (Chemistry of Synthetic High Polymers)

IT Polyoxyalkylenes, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)  
(fluorine-containing, phosphate esters; new developments in synthesis and NMR characterization of phosphate esters of (per)fluoropolyether monofunctional and difunctional macromonomers)

IT Fluoropolymers, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)  
(polyoxyalkylene-, phosphate esters; new developments in synthesis and NMR characterization of phosphate esters of (per)fluoropolyether monofunctional and difunctional macromonomers)

IT 870272-85-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(oligomeric; new developments in synthesis and NMR characterization of phosphate esters of (per)fluoropolyether monofunctional and difunctional macromonomers)

IT 870272-87-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(oligomeric; new developments in synthesis and NMR characterization of phosphate esters of (per)fluoropolyether monofunctional and difunctional macromonomers)

IT 870272-85-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(oligomeric; new developments in synthesis and NMR characterization of phosphate esters of (per)fluoropolyether monofunctional and difunctional macromonomers)

RN 870272-85-8 ZCAPLUS

CN Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)],  
 $\alpha$ -[2-chlorotrifluoro(trifluoromethyl)ethyl]- $\omega$ -(1,1-difluoro-2-hydroxyethoxy)-, phosphate (9CI) (CA INDEX NAME)

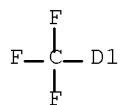
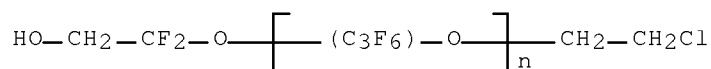
CM 1

CRN 540534-24-5

CMF (C3 F6 O)<sub>n</sub> C5 H3 Cl F8 O2

CCI IDS, PMS

10/579814

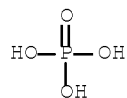


3 ( D1—F )

CM 2

CRN 7664-38-2

CMF H3 O4 P



IT 870272-87-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(oligomeric; new developments in synthesis and NMR characterization of  
phosphate esters of (per)fluoropolyether monofunctional and  
difunctional macromonomers)

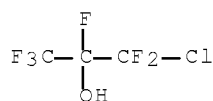
RN 870272-87-0 ZCAPLUS

CN Oxirane, trifluoro(trifluoromethyl)-, polymer with oxirane,  
mono[1-(chlorodifluoromethyl)-1,2,2,2-tetrafluoroethyl] ether, phosphate  
(9CI) (CA INDEX NAME)

CM 1

CRN 870272-86-9

CMF C3 H Cl F6 O

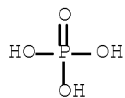


CM 2

CRN 7664-38-2

CMF H3 O4 P

10/579814



CM 3

CRN 31196-30-2

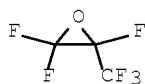
CMF (C3 F6 O . C2 H4 O) x

CCI PMS

CM 4

CRN 428-59-1

CMF C3 F6 O



CM 5

CRN 75-21-8

CMF C2 H4 O



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 9 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:606367 ZCAPLUS Full-text

DOCUMENT NUMBER: 143:144356

TITLE: Wiring substrates including no open circuit nor short circuits and manufacture thereof

INVENTOR(S): Sasaki, Hiroshi; Kurosawa, Makoto; Shimizu, Kazuo

PATENT ASSIGNEE(S): Hitachi Ltd., Japan; Ricoh Printing Systems, Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

10/579814

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005191330	A	20050714	JP 2003-431803	20031226
US 20050158528	A1	20050721	US 2004-19984	20041223
US 20070154626	A1	20070705	US 2007-707091	20070216
PRIORITY APPLN. INFO.:			JP 2003-431803	A 20031226
			US 2004-19984	A3 20041223

AB Wiring substrates forming organic films and metal wirings thereon, where the organic films satisfy average surface roughness  $Ra \geq 60$  nm and  $\leq 5 \times 10^{-2} \times D$  ( $D$  = wiring width) and water contact angle  $\geq 110^\circ$  on the wiring-side surface, are claimed. The organic films may contain mixts. of resins, microparticulate silica, and optionally F compds. (structures given). To make the substrates, particulate metal dispersions are applied on the organic film-formed substrates and then heated to form wiring patterns.

IC ICM H05K003-38  
ICS B32B009-00; C08J007-12; C09K003-18; H05K001-02; H05K001-09;  
H05K003-10; C08L101-00

CC 76-2 (Electric Phenomena)  
Section cross-reference(s): 42

IT Phenolic resins, processes  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(epoxy, substrate surface; manufacture of wiring substrates including no open circuit nor short circuits)

IT Polyoxyalkylenes, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(perfluoro, alkoxyisilyl-terminated, undercoats; manufacture of wiring substrates including no open circuit nor short circuits)

IT Fluoropolymers, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyoxyalkylene-, perfluoro, alkoxyisilyl-terminated, undercoats; manufacture of wiring substrates including no open circuit nor short circuits)

L77 ANSWER 10 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:472000 ZCAPLUS Full-text

DOCUMENT NUMBER: 143:13003

TITLE: Cosmetic and/or dermatological compositions containing polyphenols stabilized by perfluoropolyether phosphates

INVENTOR(S): Panin, Giorgio

PATENT ASSIGNEE(S): Bio. Lo. Ga. S.r.L., Italy

SOURCE: PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005049089	A2	20050602	WO 2004-EP9667	20040830
WO 2005049089	A3	20050728		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
 SN, TD, TG

AU 2004290876	A1	20050602	AU 2004-290876	20040830
CA 2546172	A1	20050602	CA 2004-2546172	20040830
EP 1684700	A2	20060802	EP 2004-764633	20040830
EP 1684700	B1	20070328		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

CN 1882309	A	20061220	CN 2004-80034178	20040830
AT 357901	T	20070415	AT 2004-764633	20040830
JP 2007511549	T	20070510	JP 2006-540191	20040830
JP 4102419	B2	20080618		
ES 2285500	T3	20071116	ES 2004-764633	20040830
IN 2006CN02174	A	20070608	IN 2006-CN2174	20060619
US 20070148109	A1	20070628	US 2006-579814	20061013

PRIORITY APPLN. INFO.:

EP 2003-425742	A	20031119
WO 2004-EP9667	W	20040830

AB The present invention relates to the use of perfluoropolyether phosphates, in particular perfluoropolyether diphosphates (0.2 to 1.0% by weight), as stabilizing agents for polyphenols in cosmetic and/or dermatol. compns. for topical application, and it also concerns cosmetic and/or dermatol. compns. containing polyphenols and optionally vitamin E and free ascorbic acid, stabilized by perfluoropolyether diphosphates. For example, a cream was prepared containing Steareth-2 4, Steareth-21 4, cetearyl alc. 4, glyceryl stearate 3, octyldodecanol 3, dimethicone 0.5, tocopherol 5, glycerin 8, pentylene glycol 7, disodium EDTA 0.05, polyperfluoroethoxymethoxydifluoroethyl PEG phosphate (Fomblin HC/P2-1000) 0.5, Camelia sinensis extract (Greenselect) 0.5, Vitis vinifera extract (Leucoselect) 0.5, and water to 100%, resp.

IC ICM A61K047-00

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 63

ST polyphenol perfluoropolyether phosphate stabilizer cosmetic topical

IT Cosmetics

Skin preparations (pharmaceutical)

Stabilizing agents

(cosmetic and/or dermatol. compns. containing polyphenols  
 stabilized by perfluoropolyether phosphates)

IT Carotenes, biological studies

RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);  
 USES (Uses)

(cosmetic and/or dermatol. compns. containing polyphenols  
 stabilized by perfluoropolyether phosphates)

IT Cosmetics

(creams; cosmetic and/or dermatol. compns. containing polyphenols  
 stabilized by perfluoropolyether phosphates)

IT Drug delivery systems

(ointments, creams; cosmetic and/or dermatol. compns. containing  
 polyphenols stabilized by perfluoropolyether phosphates)

IT Polyoxyalkylenes, uses

RL: MOA (Modifier or additive use); USES (Uses)

(perfluoro, phosphates; cosmetic and/or dermatol.  
 compns. containing polyphenols stabilized by  
 perfluoropolyether phosphates)

IT Fluoropolymers, uses



10/579814

RL: MOA (Modifier or additive use); USES (Uses)  
 (polyoxyalkylene-, perfluoro, phosphates; cosmetic  
 and/or dermatol. compns. containing polyphenols stabilized by  
 perfluoropolyether phosphates)

IT Phenols, biological studies

RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);  
 USES (Uses)  
 (polyphenols, nonpolymeric; cosmetic and/or dermatol. compns.  
 containing polyphenols stabilized by perfluoropolyether  
 phosphates)

IT 50-81-7, Ascorbic acid, biological studies 127-40-2, Lutein 127-40-2D,  
 Xanthophyll, derivs. 502-65-8, Lycopene 1406-18-4, Vitamin E  
 11103-57-4, Vitamin A 222838-60-0, Leucoselect 324519-76-8, Fomblin  
 HC/P 2-1000 639001-45-9, Greenselect

RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);  
 USES (Uses)  
 (cosmetic and/or dermatol. compns. containing polyphenols  
 stabilized by perfluoropolyether phosphates)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 11 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:160714 ZCAPLUS Full-text

DOCUMENT NUMBER: 142:269220

TITLE: Phototool coating used in photolithographic process

INVENTOR(S): Lu, David D.; Pellerite, Mark J.; Flynn, Richard M.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: U.S. Pat. Appl. Publ., 12 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

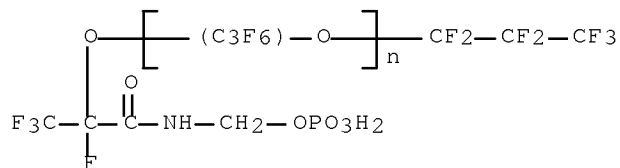
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050042553	A1	20050224	US 2003-645020	20030821
US 7189479	B2	20070313		
WO 2005024520	A2	20050317	WO 2004-US21017	20040630
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1656588	A2	20060517	EP 2004-756433	20040630
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1839351	A	20060927	CN 2004-80023994	20040630
JP 2007503016	T	20070215	JP 2006-523840	20040630
KR 2006080182	A	20060707	KR 2006-703411	20060220
US 20070128557	A1	20070607	US 2007-671366	20070205
PRIORITY APPLN. INFO.:			US 2003-645020	A 20030821
			WO 2004-US21017	W 20040630
OTHER SOURCE(S):		MARPAT 142:269220		

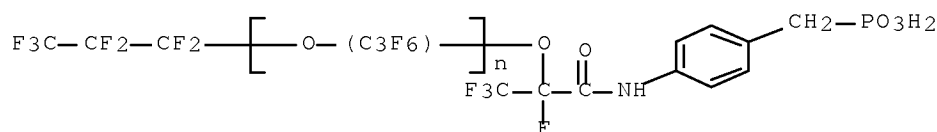
- AB The objects and advantages of the present invention are to provide a phototool used in photolithog. process having a durable coating with low surface energy, to extend phototool service life by reducing cleaning requirements, and to improve circuit making yield, especially in fine pitch circuit making. One embodiment of the present invention provides a method of patterning a device using a phototool having transparent portions and a first and second surface, comprising the steps: (a) applying a layer comprising a fluorinated phosph(on)ate material to the first surface of the phototool; (b) placing the coated first surface of the phototool against the device such that the layer of fluorinated phosph(on)ate is in contact with the device; and (c) applying radiation to the second surface of the phototool for affecting a pattern in the device. Another embodiment of the present invention provides a method of creating patterns in a patternable material comprising the steps: (a) applying a layer of a fluorinated phosph(on)ate material to a first surface of a phototool; (b) applying photoresist to a surface of the patternable material; (c) placing the first surface of the phototool in contact with the photoresist; (d) applying radiation to the phototool so a pattern is created in the photoresist; (e) removing a portion of the photoresist to expose a portion of the patternable material surface; and (f) modifying the exposed surface of the patternable material where the photoresist was removed.
- IC ICM G03F007-00
- INCL 430322000; 430270100; 430009000
- CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38
- IT **Polyoxyalkylenes, uses**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fluorine-containing; phototool coating used in photolithog. process using perfluoropolyether phosphonic acids and phosphate esters)
- IT **Fluoropolymers, uses**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-; phototool coating used in photolithog. process using perfluoropolyether phosphonic acids and phosphate esters)
- IT **Fluoropolymers, uses**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-polyoxymethylene-, phosphates; phototool coating used in photolithog. process using perfluoropolyether phosphonic acids and phosphate esters)
- IT **Polyoxyalkylenes, uses**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyoxymethylene-, fluorine-containing, phosphates; phototool coating used in photolithog. process using perfluoropolyether phosphonic acids and phosphate esters)
- IT ~~845734-24-9P~~ ~~845734-25-0P~~ ~~845734-26-1P~~  
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(phototool coating used in photolithog. process using perfluoropolyether phosphonic acids and phosphate esters)
- IT ~~845734-24-9P~~ ~~845734-25-0P~~ ~~845734-26-1P~~  
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(phototool coating used in photolithog. process using perfluoropolyether phosphonic acids and phosphate esters)
- RN 845734-24-9 ZCAPLUS
- CN Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)],  
 $\alpha$ -(heptafluoropropyl)- $\omega$ -[1,2,2,2-tetrafluoro-1-  
[[[(phosphonooxy)methyl]amino]carbonyl]ethoxy]- (9CI) (CA INDEX NAME)

10/579814



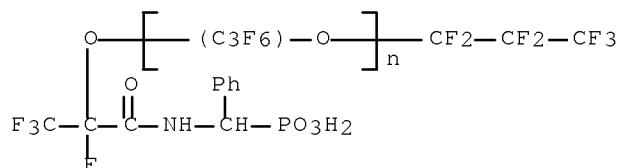
RN 845734-25-0 ZCAPLUS

CN Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)],  
 $\alpha$ -(1,1,2,2,3,3,3-heptafluoropropyl)- $\omega$ -[1,2,2,2-tetrafluoro-1-  
 [[[4-(phosphonomethyl)phenyl]amino]carbonyl]ethoxy]- (CA INDEX NAME)



RN 845734-26-1 ZCAPLUS

CN Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)],  
 $\alpha$ -(1,1,2,2,3,3,3-heptafluoropropyl)- $\omega$ -[1,2,2,2-tetrafluoro-1-  
 [[(phenylphosphonomethyl)amino]carbonyl]ethoxy]- (CA INDEX NAME)



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 12 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:878180 ZCAPLUS Full-text

DOCUMENT NUMBER: 141:351024

TITLE: Extrusion apparatus and method for production of polymer blends

INVENTOR(S) : Hossan, Robert John

PATENT ASSIGNEE(S): General Electric, USA

SOURCE: U.S. Pat. Appl. Publ., 14 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 20040209977	A1	20041021	US 2003-249552	20030417
US 6908573	B2	20050621		
WO 2004094128	A1	20041104	WO 2004-US8352	20040319
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1617984	A1	20060125	EP 2004-759665	20040319
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK			
CN 1774325	A	20060517	CN 2004-80010221	20040319
JP 2006523558	T	20061019	JP 2006-507338	20040319
PRIORITY APPLN. INFO.:			US 2003-249552	A 20030417
			WO 2004-US8352	W 20040319

AB A screw for a multiple screw extruder comprises at least two conveying sections for transporting a composition comprising a polymeric resin from the feed end to the discharge end of the extruder, and at least two mixing sections comprising screw elements having two flights, the ratio of the length to diameter ratio of the sum of the mixing sections to the length to diameter ratio of the screw being 0.17-0.50, and the conveying sections being separated by at least one mixing section. A method for producing an extruded composition in an extruder of a fixed diameter comprises the steps of (a) feeding a first polymeric resin into a first conveying section of a multiple screw extruder, (b) plasticating the first polymeric resin in a first mixing section having a length to diameter ratio  $> 5$ , (c) feeding a second polymeric resin into a second conveying section of the extruder, and (d) blending the first polymeric resin with the second polymeric resin in a second mixing section having a length to diameter ratio  $\geq 5$ , the ratio of the sum of the lengths of the first and second mixing sections to the length of the screw being 0.17-0.50, and the screw speed being  $\geq 500$  rpm. The method is especially advantageous for manufacture of high impact poly(arylene ether)/polyamide blends having an impact strength  $\geq 300$  kg-cm, while utilizing a specific energy consumption  $\leq 0.3$  kW hour/kg of blend.

IC ICM A21C001-06  
ICS H01C001-00; C08K003-04  
INCL 523324000; 524495000; 366079000  
CC 38-2 (Plastics Fabrication and Uses)  
Section cross-reference(s): 39  
IT Acrylic polymers, uses  
Epoxy resins, uses  
Fluoropolymers, uses  
Natural rubber, uses  
Phenolic resins, uses  
Polyamides, uses  
Polycarbonates, uses  
Polyesters, uses  
Polyoxymethylenes, uses  
Polysiloxanes, uses  
Polysulfones, uses

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Polythiophenylenes  
Polyurethanes, uses  
Synthetic rubber, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(extrusion apparatus and method for production of polymer blends)

IT Polyoxyalkylenes, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(perfluoro; extrusion apparatus and method for production of polymer blends)

IT Fluoropolymers, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-, perfluoro; extrusion apparatus and method for production of polymer blends)

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 13 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:19990 ZCAPLUS Full-text

DOCUMENT NUMBER: 140:84639

TITLE: Photosensitive polymer coatings and photoresists suitable for spin coating

INVENTOR(S): Matsuo, Jiro; Takano, Kiyoshi; Kinoshita, Koji

PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2004002733	A	20040108	JP 2003-77846	20030320
TW 281486	B	20070521	TW 2003-92106575	20030325

PRIORITY APPLN. INFO.: JP 2002-91271 A 20020328

AB The coatings and photoresists contain fluoroalkyl-containing vinyl polymer surfactants having F content of 0.1-5% as leveling agents. The content of the surfactants is 0.1-5% based on total weight of the surfactants and photosensitive polymers. Uniform layers are formed with low consumption of the coatings and photoresists.

IC ICM C09D157-08  
ICS C08F290-06; C09D007-12; C09D133-06; C09D133-16; C09D155-00;  
C09D183-07

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 42, 46

IT Polyoxyalkylenes, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic, fluorine-containing, graft, leveling agent; photosensitive coatings and photoresists containing fluoroalkyl-containing vinyl polymer leveling agents suitable for spin coating)

IT Fluoropolymers, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic-polyoxyalkylene-, graft, leveling agent; photosensitive coatings and photoresists containing fluoroalkyl-containing

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vinyl polymer leveling agents suitable for spin coating)  
IT **Phenolic resins**, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(novolak; photosensitive coatings and photoresists containing  
fluoroalkyl-containing vinyl polymer leveling agents suitable for spin  
coating)

L77 ANSWER 14 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2003:875673 ZCAPLUS Full-text  
DOCUMENT NUMBER: 141:28188  
TITLE: Superfluid emulsion of perfluoropolyethylene  
phosphate. High-pressure homogenization  
AUTHOR(S): Grasselli, Silvia; Malchiodi, Annalisa; Brunetta,  
Fabio; Pantini, Giovanni  
CORPORATE SOURCE: Niro Soavi, Parma, Italy  
SOURCE: Cosmetic Technology (Milano, Italy) (2003), 6(1),  
31-35  
CODEN: CTECFI; ISSN: 1127-6312  
PUBLISHER: C.E.C. sas  
DOCUMENT TYPE: Journal  
LANGUAGE: Italian

AB A high-pressure homogenization process using PFPE-1000 phosphate used to  
prepare cosmetic creams and sunscreens was described.

CC 62-4 (Essential Oils and Cosmetics)

IT **Polyoxyalkylenes**, biological studies  
RL: COS (Cosmetic use); PRP (Properties); BIOL (Biological study); USES  
(Uses)  
(fluorine-containing, PFPE-1000 phosphate; superfluid emulsion of  
perfluoropolyethylene phosphate used for high  
pressure homogenization in skin cosmetic manufacturing)

IT **Fluoropolymers**, biological studies  
RL: COS (Cosmetic use); PRP (Properties); BIOL (Biological study); USES  
(Uses)  
(polyoxyalkylene-, PFPE-1000 phosphate; superfluid  
emulsion of perfluoropolyethylene phosphate used for high  
pressure homogenization in skin cosmetic manufacturing)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 15 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2003:596617 ZCAPLUS Full-text  
DOCUMENT NUMBER: 139:135234  
TITLE: Fluoroalkyl- and polyoxyalkylene-containing polymers  
as surfactants for coating compositions  
INVENTOR(S): Fujita, Kazuo; Tan, Shiro  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2003221419	A	20030805	JP 2002-22756	20020131
US 20030207202	A1	20031106	US 2003-353025	20030129
US 7105270	B2	20060912		
PRIORITY APPLN. INFO.:			JP 2002-22756	A 20020131
			JP 2002-29284	A 20020206

AB The polymers are manufactured from monomers containing (A)  
 $\text{CH}_2:\text{CR}_1\text{COX}_1(\text{CH}_2)_m(\text{CF}_2)_n\text{F}$  or  $\text{CH}_2:\text{CR}_1\text{COX}_1(\text{CH}_2)_m\text{CR}_2[(\text{CF}_2)_o\text{F}](\text{CF}_2)_p\text{F}$  [ $\text{X}_1 = \text{O}$ ,  $\text{NR}_3$ ;  
 $\text{R}_1 = \text{H}$ ,  $\text{Me}$ ;  $\text{R}_3 = \text{H}$ , (un)substituted C1-12 (cyclo)alkyl, C6-12 aryl, C6-24  
 aralkyl;  $\text{R}_2 = \text{H}$ ,  $\text{F}$ ;  $m = 0-10$ ;  $n = 2, 3$ ;  $o, p = 1, 2$ ] and (B) polyoxyalkylene-  
 containing ethylenically unsatd. monomers. Thus,  $\text{CH}_2:\text{CHCO}_2\text{CH}_2\text{C}_3\text{F}_7$  50, Blemmer  
 AP 400 45, and Blemmer AE 400 5 parts were polymerized to give a  
 fluoropolymer, which was added to Acrylic A 181 at 0.5% to give a coating  
 showing no foaming, good leveling property, and peeling resistance.

IC ICM C08F220-22  
 ICS C08F220-28; C08F220-54; C08F290-06; C09D133-24; C09D155-00;  
 G03F007-004; H01L021-027; C09D133-14

CC 46-3 (Surface Active Agents and Detergents)  
 Section cross-reference(s): 42, 74

IT **Polyoxyalkylenes**, uses  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP  
 (Preparation); USES (Uses)  
 (acrylic, fluorine-containing, graft; manufacture of fluoroalkyl  
 -containing polymers as surfactants for coatings or photoresists)

IT **Fluoropolymers**, uses  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP  
 (Preparation); USES (Uses)  
 (acrylic-polyoxyalkylene-, graft; manufacture of  
 fluoroalkyl-containing polymers as surfactants for coatings or  
 photoresists)

IT **Phenolic resins**, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material  
 use); USES (Uses)  
 (novolak, photoresists; manufacture of fluoroalkyl-containing polymers as  
 surfactants for coatings or photoresists)

L77 ANSWER 16 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2003:551211 ZCAPLUS Full-text  
 DOCUMENT NUMBER: 139:118127  
 TITLE: Aqueous compositions of perfluoropolyether phosphates  
 and its application for oleo-repellency treatment of  
 paper  
 INVENTOR(S): Maccone, Patrizia; D'Aprile, Fiorenza; Visca, Mario  
 PATENT ASSIGNEE(S): Solvay Solexis S.p.A., Italy  
 SOURCE: U.S. Pat. Appl. Publ., 7 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 20030134972	A1	20030717	US 2003-340730	20030113
US 7141140	B2	20061128		
IT 2002MI0057	A1	20030715	IT 2002-MI57	20020115
EP 1371676	A1	20031217	EP 2003-385	20030110
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2003286404	A	20031010	JP 2003-7419	20030115
PRIORITY APPLN. INFO.:			IT 2002-MI57	A 20020115

AB Title aqueous compns., which can be used for oleo-repellency surface treatment  
 of the paper by size-press, is composed of 0.1-5 weight%, preferably 0.4-1  
 weight% (per)fluoropolyether phosphates and a solvent of glycol class,  
 preferably dipropylene glycol monomethyl ether or dipropylene glycol. Thus,

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phosphates-containing aqueous composition with pH of 4 was used to press sizing filter paper sheet.

IC ICM C08J003-00

INCL 524610000

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 43

IT Polyoxyalkylenes, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(fluorine-containing, phosphate; aqueous perfluoropolyether phosphates composition for oleo-repellency treatment of paper)

IT Polyoxyalkylenes, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(phosphono-terminated, fluoro; aqueous perfluoropolyether phosphates composition for oleo-repellency treatment of paper)

IT Fluoropolymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-, phosphate; aqueous perfluoropolyether phosphates composition for oleo-repellency treatment of paper)

IT Fluoropolymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-polyoxymethylene-, phosphate; aqueous perfluoropolyether phosphates composition for oleo-repellency treatment of paper)

IT Polyoxyalkylenes, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(polyoxymethylene-, fluorine-containing, phosphate; aqueous perfluoropolyether phosphates composition for oleo-repellency treatment of paper)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 17 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:550099 ZCAPLUS Full-text

DOCUMENT NUMBER: 139:102118

TITLE: Aqueous compositions of perfluoropolyether phosphates and use thereof to confer oleo-repellency to paper

INVENTOR(S): Maccone, Patrizia; D'Aprile, Fiorenza; Visca, Mario

PATENT ASSIGNEE(S): Solvay Solexis S.p.A., Italy

SOURCE: Eur. Pat. Appl., 9 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1327649	A2	20030716	EP 2003-384	20030110
EP 1327649	A3	20031210		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
IT 2002MI0056	A1	20030715	IT 2002-MI56	20020115
US 20030134952	A1	20030717	US 2003-340729	20030113
US 6790890	B2	20040914		
JP 2003227094	A	20030815	JP 2003-7425	20030115

PRIORITY APPLN. INFO.: IT 2002-MI56 A 20020115

AB The present invention relates to aqueous compns. (A) T-O-[Rf-CFY-L-O]P(O)(O-Z+)(OH) and/or (B) (OH)m(O-Z+)<sub>2</sub>-mP(O)[O-L-YFC-O-Rf-CFY-L-O-P(O)(O-Z+)]m'- -[O-L-YFC-O-Rf-CFY-L-O]P(O)(O-Z+)<sub>2</sub>-m(OH)m and use thereof to confer oleo-



repellency to the paper in bulk by means of the wet-end method, wherein m' = 0 - 20, preferably 0 - 4 integer; L = organic group selected from CH<sub>2</sub>(OCH<sub>2</sub>CH<sub>2</sub>)<sub>n</sub> and CONR<sub>1</sub>(CH<sub>2</sub>)<sub>q</sub>; R<sub>1</sub> = H or C<sub>1</sub>-4 alkyl; n = 0 - 8, preferably 1 - 3 integer; q = 1 - 8, preferably 1 - 3 integer; Z+ = Alkaline METAL ION OR NR<sub>4</sub>; R = H OR C<sub>1</sub>-4 ALKYL OR Aliphatic AMINE ION; Y = F OR CF<sub>3</sub>; M = 0 - 1 number; and R<sub>f</sub> = (per)fluoropolyoxyalkylene chain with number average mol. weight 350 - 8000, preferably 500 - 3000. Thus, a composition comprised cellulose composed of 30% soft wood and 70% hard wood 3, Nalco 7607 cationic retentive agent 0.012, and an aqueous formula with pH 9 and average aggregate size < 150 nm containing 20% perfluoropolyether phosphate mixture 0.105 g.

IC ICM C08G065-00

ICS D21H021-16; D21H017-53

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 43

IT Polyoxyalkylenes, uses

RL: MOA (Modifier or additive use); USES (Uses)

(perfluoro, phosphate derivs.; aqueous compns. of perfluoropolyether phosphates and use thereof to confer oleo-repellency to paper)

IT Fluoropolymers, uses

RL: MOA (Modifier or additive use); USES (Uses)

(polyoxyalkylene-, perfluoro, phosphate derivs.; aqueous compns. of perfluoropolyether phosphates and use thereof to confer oleo-repellency to paper)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 18 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:553091 ZCAPLUS Full-text

DOCUMENT NUMBER: 137:109648

TITLE: Process for obtaining mixtures of phosphoric mono- and diesters

INVENTOR(S): Russo, Antonio; Tonelli, Claudio

PATENT ASSIGNEE(S): Ausimont S.p.A., Italy; Solvay Solexis S.p.A.

SOURCE: Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1225178	A1	20020724	EP 2002-924	20020116
EP 1225178	B1	20030813		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 20020099234	A1	20020725	US 2002-50845	20020118
US 6653495	B2	20031125		
JP 2002302496	A	20021018	JP 2002-11821	20020121
JP 3888902	B2	20070307		

PRIORITY APPLN. INFO.: IT 2001-MI114 A 20010123

AB Phosphoric mono- and diesters are prepared by mixing perfluoro polyoxyalkylene monools or diols with water, then reacting with P<sub>2</sub>O<sub>5</sub>, and hydrolyzing with water or dilute HCl. The phosphoric ester salts are particularly useful in aqueous dispersions for water and oil repellent applications.

IC ICM C07F009-09

CC 35-8 (Chemistry of Synthetic High Polymers)

IT Polyoxyalkylenes, preparation

RL: IMF (Industrial manufacture); TEM (Technical or engineered material)

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use); PREP (Preparation); USES (Uses)  
(perfluoro, phosphates; process for obtaining  
mixts. of phosphoric mono- and diesters)

IT Fluoropolymers, preparation

RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
use); PREP (Preparation); USES (Uses)

(polyoxyalkylene-, perfluoro, phosphates; process  
for obtaining mixts. of phosphoric mono- and diesters)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 19 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:402070 ZCAPLUS Full-text

DOCUMENT NUMBER: 137:338524

TITLE: Thermophysical properties of thermostable  
isocyanate-based polymers

AUTHOR(S): Kozak, N. V.; Shekera, O. V.; Nesterenko, G. M.;  
Nizel'skii, Yu. M.

CORPORATE SOURCE: Inst. Khim. Vysokomol. Spoluk, NAN Ukr., Kiev, 02160,  
Ukraine

SOURCE: Kompozitsiini Polimerni Materiali (2002), 23(2),  
96-102

CODEN: KPMOAD

PUBLISHER: NAN Ukraini, Institut Khimii Visokomolekulyarnikh  
Spoluk

DOCUMENT TYPE: Journal

LANGUAGE: Ukrainian

AB Thermooxidative degradation fluoro-containing segmented polyoxypropylene-  
polyurethane-polyureas (FOPUU) was investigated using thermogravimetry method.  
The effect of chemical modification, activators, and crosslinking conditions  
on thermophys. properties was studied. A possibility of chemical  
transformation of the polymers in the 100-300 ° temperature range without  
thermooxidative degradation was evaluated. Sensitivity of thermogravimetric  
curves with respect to isomerism of amine groups in fluoro-containing chain  
extender of segmented polyurethane ureas. Thermal properties of FOPUU compns.  
with epoxy or phenolic resins used for friction materials were studied.

CC 37-5 (Plastics Manufacture and Processing)

Section cross-reference(s): 38

IT Phenolic resins, properties

RL: POF (Polymer in formulation); PRP (Properties); RCT (Reactant); RACT  
(Reactant or reagent); USES (Uses)

(amino-containing; thermooxidative degradation thermally stable fluoro-  
containing

segmented polyoxypropylene-polyurethane-polyureas)

IT Fluoropolymers, properties

RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)

(polyoxyalkylene-polyurethane-polyurea-, block;  
thermooxidative degradation thermally stable fluoro-containing segmented  
polyoxypropylene-polyurethane-polyureas)

IT Polyoxyalkylenes, properties

RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)  
(polyurea-polyurethanes, fluorine-containing, block; thermooxidative  
degradation thermally stable fluoro-containing segmented  
polyoxypropylene-polyurethane-polyureas)

L77 ANSWER 20 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:747187 ZCAPLUS Full-text

DOCUMENT NUMBER: 135:289616

TITLE: Silicone dispersibility improver for fluororesin  
powders, and organic resin compositions

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INVENTOR(S): Kobayashi, Hideki; Masatomi, Toru  
PATENT ASSIGNEE(S): Dow Corning Toray Silicone Co., Ltd., Japan  
SOURCE: Eur. Pat. Appl., 16 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
EP 1142933	A1	20011010	EP 2000-302906	20000406
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: EP 2000-302906 20000406

AB The invention pertains to a polydiorganosiloxane dispersibility improver for fluoro-resin powders that contains in the pendant position (A) an organic group selected from the set consisting of polyoxyalkylene-functional organic groups, alkyl groups having at least 12 carbon atoms, and polydialkylsiloxane chain-containing organic groups, and contains in the pendant position or the mol. chain terminal position, (B) a perfluoroalkyl-functional organic group  $F(CF_2)_a-R_1-$  in which  $R_1$  is alkylene or alkyleneoxyalkylene and  $a$  is an integer with a value of at least 3. The polydiorganosiloxane dispersibility improver for fluoro-resin powders has the ability to induce the uniform dispersion of fluoro-resin powders in organic resins. As a consequence the organic resin compns. have the ability to form uniform and transparent coatings that have an excellent surface lubricity.

IC ICM C08G077-46

ICS C08G077-50; C08G077-385

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 42

IT Fluoropolymers, preparation

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(polyoxyalkylene-siloxane-; silicone dispersibility improver for fluoro-resin powders, and organic resin compns.)

IT Acrylic polymers, properties

Fluoropolymers, properties

Fluoropolymers, properties

Phenolic resins, properties

Polyamides, properties

Polyesters, properties

Polyoxymethylenes, properties

Polysulfones, properties

Polyurethanes, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)

(silicone dispersibility improver for fluoro-resin powders, and organic resin compns.)

IT Polyoxyalkylenes, preparation

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(siloxane-, fluorine-containing; silicone dispersibility improver for fluoro-resin powders, and organic resin compns.)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 21 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:747186 ZCAPLUS Full-text

DOCUMENT NUMBER: 135:289615

TITLE: Dispersibility improver for fluoro-resin powders,

modifier for organic resins, and organic resin compositions  
 INVENTOR(S): Kobayashi, Hideki; Masatomi, Toru  
 PATENT ASSIGNEE(S): Dow Corning Toray Silicone Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1142932	A1	20011010	EP 2000-302959	20000407

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.: EP 2000-302959 20000407

AB Polydiorganosiloxanes, useful as dispersibility improvers, contains (F1) at least 1 organic group selected from the group consisting of polyoxyalkylene-functional organic groups, alkyl groups having at least 12 carbon atoms, and polydialkylsiloxane chain-containing organic groups, and (F2) at least 1 perfluoroalkyl functional organic group with the formula R2XR1(CF2)aF, where R1 represents C1-10 divalent hydrocarbon groups; R2 represents C1-20 divalent hydrocarbon groups; X is a group with the formula CO or CO2; and a is an integer with a value of at least 3. The dispersibility improvers have the ability to induce the uniform dispersion of fluororesin powders in organic resins. Organic resin compns. that contain the modifier have the ability to form uniform and transparent coatings having an excellent surface smoothness. A resin was prepared from di-Me, Me H siloxane, monovinyl-terminated polydimethylsiloxane, and CH2=CHC8H16COOC2H4C8F17.

IC ICM C08G077-385  
ICS C08L027-12

CC 37-6 (Plastics Manufacture and Processing)

IT Acrylic polymers, uses  
 Fluoropolymers, uses  
 Fluoropolymers, uses  
 Phenolic resins, uses  
 Polyamides, uses  
 Polyesters, uses  
 Polyoxymethylenes, uses  
 Polysulfones, uses  
 Polyurethanes, uses  
 RL: POF (Polymer in formulation); USES (Uses)  
 (dispersibility improver for fluororesin powders, modifier for organic resins, and organic resin compns.)

IT Fluoropolymers, preparation  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (polyoxyalkylene-siloxane-; dispersibility improver for fluororesin powders, modifier for organic resins, and organic resin compns.)

IT Polyoxyalkylenes, preparation  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (siloxane-, fluorine-containing; dispersibility improver for fluororesin powders, modifier for organic resins, and organic resin compns.)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/579814

L77 ANSWER 22 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:450733 ZCAPLUS Full-text

DOCUMENT NUMBER: 134:87118

TITLE: Formation of polyantimonic acid and  $\alpha$ -zirconium phosphate in perfluoro ionomer membrane

AUTHOR(S): Tiwari, S. K.; Agarwal, Y. K.; Nema, S. K.

CORPORATE SOURCE: Macromolecular Research Center, R D University, Jabalpur, 482 001, India

SOURCE: Indian Journal of Engineering & Materials Sciences (2000), 7(1), 35-39

CODEN: IEMSEW; ISSN: 0971-4588

PUBLISHER: National Institute of Science Communication, CSIR

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Inorg. ion exchanger, viz., polyantimonic acid (PAM) and  $\alpha$ -zirconium phosphate (ZrP) were synthesized vitreously using a novel approach involving solvent media instead of conventional aqueous media. The exchangers were also incorporated into a perfluoro ionomer membrane matrix employing the solution systems used in vitreous preps. The spectra of vitreously synthesized and in situ precipitated exchangers were compared with spectra of those obtained by reported methods. The similarities in spectra of H<sup>+</sup> as well as exchanged forms suggest the in situ formation of crystalline PAM and  $\alpha$ -ZrP.

CC 38-3 (Plastics Fabrication and Uses)

IT Polyoxyalkylenes, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(fluorine- and sulfo-containing, ionomers; formation of polyantimonic acid and  $\alpha$ -zirconium phosphate in perfluoro ionomer membrane)

IT Fluoropolymers, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(polyoxyalkylene-, sulfo-containing, ionomers; formation of polyantimonic acid and  $\alpha$ -zirconium phosphate in perfluoro ionomer membrane)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 23 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:383730 ZCAPLUS Full-text

DOCUMENT NUMBER: 133:18875

TITLE: Surface treatments with bifunctional perfluoropolyether derivatives

INVENTOR(S): Visca, Mario; Modena, Silvana; Fontana, Simonetta; Gavazzi, Giovanni

PATENT ASSIGNEE(S): Ausimont S.p.A., Italy; Solvay Solexis S.P.A.

SOURCE: Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1006168	A1	20000607	EP 1999-123200	19991125
EP 1006168	B1	20050622		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

10/579814

IT 98MI2605	A1	20000601	IT 1998-MI2605	19981201
IT 1303808	B1	20010223		
JP 2000219847	A	20000808	JP 1999-336077	19991126
US 6221434	B1	20010424	US 1999-450020	19991129

PRIORITY APPLN. INFO.:

IT 1998-MI2605 A 19981201

AB The treatment method for imparting oil- and/or water-repellency, comprises the step of applying to the surface to be treated compns. comprising  $\geq 1$  compound of  $\text{ACF20}(\text{CF2O})_n(\text{C2F4O})_m\text{CF2B}$  [ $n, m = 1-20$ ; A and B = reactive functional groups of  $\text{CONHR}$  ( $R = \text{C}_n\text{H}_{2n+1}$ ;  $n = 1-30$ ),  $\text{CH2OH}$ ,  $\text{CONH(X)SiR1n(OR')3-n}$  [ $n = 0-2$ ,  $R1, R' =$  identical or different, are  $\text{CrH2r+1}$  alkyl radicals ( $r = 1-4$ );  $X =$  bifunctional alkyl spacer of  $(\text{CHR}')_m$  ( $m = 1-20$ ;  $R' = \text{H, Me}$ , optionally containing heteroatoms)],  $[\text{CH2O(R''O)}_p]\text{kP(O)(OH)3-k}$  ( $R'' =$  alkylene radical; e.g.,  $\text{C2H4}$ ,  $\text{C3H6}$ ;  $p = 1-10$ ;  $k = 1, 2$ )], wherein the composition comprises the compound at a suitable concentration and being applied in an amount suitable to obtain substantially  $\geq 1$  monolayer of the compound on the surface to be treated, the reactive groups being chosen according to the nature of the surface to be treated so as to provide interaction with the surface to be treated. Thus, a coating was made from  $(\text{NH4O})_2\text{P(O)}[\text{CH2O}(\text{C2H5O})1.5](\text{CF2O})2.5(\text{C2F4O})5\text{CF2}[(\text{CH2O})(\text{C2H5O})1.5]\text{P(O)}(\text{ONH4})_2$  in iso-PrOH.

IC ICM C09K003-18

CC 42-10 (Coatings, Inks, and Related Products)

IT Fluoropolymers, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(polyoxyalkylene-polyoxymethylene-, amide/phosphate derivs.; surface treatments with bifunctional perfluoropolyether derivs. with good oil and water resistance)

IT Polyoxyalkylenes, uses

Polyoxyalkylenes, uses

Polyoxyalkylenes, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(polyoxymethylene-, fluorine-containing, amide/phosphate derivs.; surface treatments with bifunctional perfluoropolyether derivs. with good oil and water resistance)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 24 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:137926 ZCAPLUS Full-text

DOCUMENT NUMBER: 133:78982

TITLE: Perfluoropolyether phosphate. A new primary material for the cosmetic industry: physical chemical properties and formulative aspects

AUTHOR(S): Ingoglia, Rossella; Pantini, Giovanni; Brunetta, Fabio

CORPORATE SOURCE: Personal Care Products, Ausimont, Bollate, Italy

SOURCE: Cosmetic Technology (Milano) (1999), 2(5), 17-21

CODEN: CTECFI; ISSN: 1127-6312

PUBLISHER: C.E.C. sas

DOCUMENT TYPE: Journal

LANGUAGE: Italian

AB The synthesis of perfluoropolyether phosphate is described, from reduction of perfluoropolyether Me ester to produce perfluoropolyether alc., to ethoxylation yielding perfluoropolyether alc. ethoxylate, and phosphatation to produce perfluoropolyether phosphate. The properties of the material are reported and its possible use in cosmetic emulsions, solns., and gels are discussed.

CC 62-1 (Essential Oils and Cosmetics)

IT Fluoropolymers, biological studies

10/579814

RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified);  
PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(polyoxyalkylene-polyoxymethylene-; perfluoropolyether  
phosphate preparation as a new primary material for the cosmetic  
industry)

IT Polyoxyalkylenes, biological studies  
Polyoxyalkylenes, biological studies  
Polyoxyalkylenes, biological studies

RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified);  
PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(polyoxymethylene-, fluorine-containing; perfluoropolyether  
phosphate preparation as a new primary material for the cosmetic  
industry)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 25 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1999:556723 ZCAPLUS Full-text

DOCUMENT NUMBER: 131:174848

TITLE: Cosmetics containing powders treated with  
perfluoropolyether esters

INVENTOR(S): Miyakawa, Osamu; Suzuki, Kazuhiro

PATENT ASSIGNEE(S): Kosei Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 11236307	A	19990831	JP 1998-354043	19981214

PRIORITY APPLN. INFO.: JP 1997-362771 A 19971213

AB Cosmetics, which show good compatibility with skin and natural appearance,  
contain (A) powders surface treated with compds. having perfluoropolyether  
groups of mol. weight  $\geq 300$  chosen from perfluoropolyether alkyl phosphates,  
sulfates, carboxylates, and their salts, (B) F-containing oils, and (C)  
spherical powders. A powder foundation was prepared from TiO<sub>2</sub> treated with  
(HO)<sub>2</sub>(O)PO(C<sub>2</sub>H<sub>4</sub>O)<sub>r</sub>CH<sub>2</sub>CF<sub>2</sub>O(CF<sub>2</sub>CF<sub>2</sub>O)<sub>m</sub>(CF<sub>2</sub>O)<sub>n</sub>CF<sub>2</sub>CH<sub>2</sub>(OC<sub>2</sub>H<sub>4</sub>)<sub>r</sub>OP(O)(OH)<sub>2</sub> (I; m/n =  
1.8, r = 1-2) 15, I-treated talc 20, I-treated nylon powder 5, I-treated red  
iron oxide, I-treated yellow iron oxide, black iron oxide treated with  
CF<sub>3</sub>O[CF<sub>2</sub>CF(CF<sub>3</sub>)O]<sub>l</sub>(CF<sub>2</sub>O)<sub>n</sub>CF<sub>2</sub>CH<sub>2</sub>(OC<sub>2</sub>H<sub>4</sub>)<sub>1.9</sub>OP(O)[ONH<sub>2</sub>(C<sub>2</sub>H<sub>4</sub>OH)<sub>2</sub>]<sub>2</sub> (1/n = 24.1),  
Fomblin HC 04 (F-containing oil) 5, vaseline 1, KF 96A (di-Me polysiloxane) 5,  
and I-treated mica to 100%.

IC ICM A61K007-00

ICS A61K007-00; A61K007-02

CC 62-4 (Essential Oils and Cosmetics)

IT Polyoxyalkylenes, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(fluorine-containing, phosphates; cosmetics containing powders  
treated with perfluoropolyether esters, F-containing oils, and  
spherical powders)

IT Polyoxyalkylenes, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(polyether-, fluorine-containing, phosphates; cosmetics containing  
powders treated with perfluoropolyether esters, F-containing  
oils, and spherical powders)

10/579814

IT Fluoropolymers, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(polyether-polyoxyalkylene-, phosphates; cosmetics  
containing powders treated with perfluoropolyether esters, F-containing  
oils,  
and spherical powders)

L77 ANSWER 26 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1999:331520 ZCAPLUS Full-text  
DOCUMENT NUMBER: 131:20597  
TITLE: Laundry detergent compositions with good resoiling  
preventing properties, antistatic properties, and  
softening effects for dry-cleaning  
INVENTOR(S): Hama, Yuhei; Kawamura, Yoshihiro; Kondo, Shiro  
PATENT ASSIGNEE(S): Nikka Chemical Industry Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 11140499	A	19990525	JP 1997-304438	19971106
JP 3340062	B2	20021028		
US 6039766	A	20000321	US 1998-174310	19981019
PRIORITY APPLN. INFO.:			JP 1997-304438	A 19971106
OTHER SOURCE(S):	MARPAT 131:20597			

AB Title compns. contain (A) 1-90% surfactants of F compound salts selected from [R1CH2CH2O(R2O)o]pPO(OH)3-p (R1 = C3-12 perfluoroalkyl; R2 = C2-4 alkylene; o = 0-10; p = 1-2), [R3SO2NR4CH2CH2O(R5O)q]rPO(OH)3-r (R3 = C3-12 perfluoroalkyl; R4 = C1-5 alkyl; R5 = C2-4 alkylene; q = 0-10; r = 1-2), R6SO2NR7CH2CO2H (R6 = C3-12 perfluoroalkyl; R7 = C1-5 alkyl), R8CH2CO2H (R8 = C3-12 perfluoroalkyl), R9SO3H (R9 = C6-12 perfluoroalkyl), and CF3[CF2C(CF3)FO]s(CF2O)tCF2CF2(OR10)uOP(O)(OH)2 (R10 = C2-4 alkylene; s, u = 1-0; t = 0-1) and (B) 10-99% fluoro hydrocarbon solvents and/or dissolving aids. The F compds. may form salts with alkoxylated amines. Thus, a laundry detergent composition comprising pentadecafluorocaprylic acid diethanolamine salt 10, 3-methyl-3-methoxybutanol 50, and Et perfluorobutyl ether 40% showed good detergency.

IC ICM C11D017-00  
ICS C11D001-00; C11D001-34; C11D003-20; C11D003-24; C11D003-43  
CC 46-5 (Surface Active Agents and Detergents)

IT Polyoxyalkylenes, uses  
Polyoxyalkylenes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fluorine-containing, fluoroalkyl group-terminated,  
phosphate esters, surfactants; laundry detergent compns. containing  
F-containing surfactants and fluoro hydrocarbon solvents for  
dry-cleaning)  
IT Fluoropolymers, uses  
Fluoropolymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-, fluoroalkyl group-terminated,  
phosphate esters, surfactants; laundry detergent compns. containing  
F-containing surfactants and fluoro hydrocarbon solvents for dry-cleaning)

L77 ANSWER 27 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN



10/579814

ACCESSION NUMBER: 1998:816746 ZCAPLUS Full-text  
DOCUMENT NUMBER: 130:112666  
TITLE: Solid electrolytic composite membrane  
INVENTOR(S): Hamamura, Kyoko; Asaoka, Mashiko; Kawahara, Kazuo  
PATENT ASSIGNEE(S): Toyota Central Research and Development Laboratories,  
Inc., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	JP 10340732	A	19981222	JP 1997-165210	19970606
	JP 3578307	B2	20041020		
PRIORITY APPLN. INFO.:				JP 1997-165210	19970606
AB	The membranes comprise 3-dimensional backbone comprising crosslinked polymer and fluorocarbon electrolyte reinforced with the polymer. The membranes can be made into thin films due to their high strength. Fuel cells with high energy d. can be manufactured using the membranes as electrolytes.				
IC	ICM H01M008-02 ICS C08L027-12; C08L061-06				
CC	52-2 (Electrochemical, Radiational, and Thermal Energy Technology) Section cross-reference(s): 38				
IT	<b>Polyoxyalkylenes, uses</b> RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (fluorine- and sulfo-containing, ionomers; fluoropolymer electrolytes reinforced with crosslinked polymers)				
IT	<b>Polyoxyalkylenes, uses</b> RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (fluorine-containing, sulfo-containing, ionomers; fluoropolymer electrolytes reinforced with crosslinked polymers)				
IT	<b>Fluoropolymers, uses</b> RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (polyoxyalkylene-, sulfo-containing, ionomers; fluoropolymer electrolytes reinforced with crosslinked polymers)				
IT	<b>Phenolic resins, uses</b> RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (resol; fluoropolymer electrolytes reinforced with crosslinked polymers)				

L77 ANSWER 28 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1998:258039 ZCAPLUS Full-text  
DOCUMENT NUMBER: 128:284308  
ORIGINAL REFERENCE NO.: 128:56253a, 56256a  
TITLE: Evaluation of degradation inhibitors in poly(hexafluoropropene oxide) fluids  
AUTHOR(S): Jones, William R., Jr.; Paciorek, Kazimiera J. L.; Lin, Wen-Huey; Masuda, Steven R.; Nakahara, James H.  
CORPORATE SOURCE: NASA Lewis Research Center, Cleveland, OH, 44135, USA  
SOURCE: Lubrication Engineering (1998), 54(4), 16-20  
CODEN: LUENAG; ISSN: 0024-7154  
PUBLISHER: Society of Tribologists and Lubrication Engineers

10/579814

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The action of various alloys - 440C steel, M-50 steel, Pyrowear 675, Cronidur 30 and Ti(4Al,4Mn) - and the effect of degradation inhibitors mono- and diphospho-s-triazines, ~~diphosphates~~-traazacyclooctatetraene, phosphate esters, phosphate/diester rust inhibiting mixts., and a phosphine were evaluated in two poly(hexafluoropropene oxide) fluids (143AC and 16256). The degradation promoting action of the ferrous alloys in 16256 fluid were comparable and the Ti(4Al,4Mn) alloy was significantly more detrimental. The overall rating of the additives was phosphates>phosphate/diester mixture>phosphine>phospha-s-triazines. The 16256 fluid was less responsive to additive inhibition than 143AC. Phosphate esters were fully effective over 24-h exposure in the 16256/440C steel and the 16256/Ti (4Al, 4Mn) systems at 330°C. In general, the phosphine was less effective in the presence of ferrous alloys than the phosphates and phospha-s-triazines.

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)  
Section cross-reference(s): 38

IT Polyoxyalkylenes, processes

RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(fluorine-containing; evaluation of degradation inhibitors in poly(  
hexafluoropropene oxide) fluids)

IT Polyoxyalkylenes, processes

RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(perfluoro; evaluation of degradation inhibitors in poly(  
hexafluoropropene oxide) fluids)

IT Fluoropolymers, processes

Fluoropolymers, processes  
RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(polyoxyalkylene-; evaluation of degradation inhibitors in  
poly(hexafluoropropene oxide) fluids)

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 29 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:204094 ZCAPLUS Full-text

DOCUMENT NUMBER: 128:296744

ORIGINAL REFERENCE NO.: 128:58783a,58786a

TITLE: Phosphate and phosphonate degradation inhibitors for  
perfluoropolyalkylether fluids

AUTHOR(S): Paciorek, K. J. L.; Masuda, S. R.; Lin, W.-H.

CORPORATE SOURCE: Technolube Prod. Div., Lubricating Specialties, Corona  
del Mar, CA, 92625, USA

SOURCE: Journal of Fluorine Chemistry (1998), 88(1), 89-94  
CODEN: JFLCAR; ISSN: 0022-1139

PUBLISHER: Elsevier Science S.A.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Phosphates, phosphonates and related compns. were evaluated in  
perfluoropolyalkylether fluids in the presence of M-50 alloy to determine the  
effect of these additives on inhibition of the thermal oxidative degradation  
of a given fluid. In general, phosphates were found to be more effective than  
the corresponding phosphonates.

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)  
Section cross-reference(s): 36, 38

IT Polyoxyalkylenes, processes

RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(fluorine-containing; phosphate and phosphonate degradation  
inhibitors for perfluoropolyalkylether fluids)

IT Polyoxyalkylenes, processes

RL: PEP (Physical, engineering or chemical process); PROC (Process)

10/579814

(perfluoro; phosphate and phosphonate degradation inhibitors for perfluoropolyalkylether fluids)  
IT Fluoropolymers, processes  
Fluoropolymers, processes  
RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(polyoxyalkylene-; phosphate and phosphonate degradation inhibitors for perfluoropolyalkylether fluids)  
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 30 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1997:720243 ZCAPLUS Full-text

DOCUMENT NUMBER: 127:316072

ORIGINAL REFERENCE NO.: 127:61805a

TITLE: Subfemtomolar Determination of Alkaline Phosphatase at a Disposable Screen-Printed Electrode Modified with a Perfluorosulfonated Ionomer Film

AUTHOR(S): Bagel, Olivier; Limoges, Benoit; Schoellhorn, Bernd; Degrand, Chantal

CORPORATE SOURCE: Equipe Electrosynthese et Electroanalyse Bioorganique, Universite Blaise-Pascal de Clermont-Ferrand, Aubiere, 63177, Fr.

SOURCE: Analytical Chemistry (1997), 69(22), 4688-4694

CODEN: ANCHAM; ISSN: 0003-2700

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A carbon-based ink composed of graphite particles and polystyrene was used in association with a manual screen-printer to prepare electrodes on a flexible polyester film. The screen-printing step was followed by a drying step which was achieved within 1 h at room temperature. The screen-printed electrode (SPE) was coated by a polyanionic Nafion film in which electroactive cationic species could accumulate. A detection limit of  $10^{-9}$  M was thus obtained by cyclic voltammetric (CV) determination of [(4-hydroxyphenyl)amino]cobaltocenium (P<sup>+</sup>) after accumulation for 60 min. Since this cationic phenol derivative P<sup>+</sup> could be generated from the corresponding anionic ester phosphate (S<sup>-</sup>) by alkaline phosphatase (AP) hydrolysis, the new S<sup>-</sup> substrate was synthesized and the sensitive indirect CV determination of AP was performed at a Nafion-coated SPE. The S<sup>-</sup> substrate did not interfere on the electrochem. response of P<sup>+</sup> owing to the permselectivity of Nafion. An AP detection of  $4 \times 10^{-16}$  M was thus achieved in Tris buffer (pH 9) after hydrolysis of S<sup>-</sup> ( $10^{-4}$  M) to P<sup>+</sup> (Michaelis constant  $K_m = 48 \mu\text{M}$ ) and simultaneous accumulation of P<sup>+</sup> within Nafion for 1 h. The Nafion-SPE was stuck successfully to the bottom of a microwell, making it possible to work with solution vols. ranging from 50 to 250  $\mu\text{L}$ , well adapted to enzyme immunoassays.

CC 7-1 (Enzymes)

IT Polyoxyalkylenes, uses

RL: DEV (Device component use); USES (Uses)

(fluorine- and sulfo-containing, ionomers; subfemtomolar determination of alkaline

phosphatase by cyclic voltammetric detection of cobaltocenium

phosphate ester hydrolysis product at a

perfluorosulfonated ionomer-coated disposable screen-printed electrode)

IT Polyoxyalkylenes, uses

RL: DEV (Device component use); USES (Uses)

(fluorine-containing, sulfo-containing, ionomers; subfemtomolar determination of alkaline

phosphatase by cyclic voltammetric detection of cobaltocenium phosphate ester hydrolysis product at a perfluorosulfonated ionomer-coated disposable screen-printed electrode)

IT Fluoropolymers, uses  
Fluoropolymers, uses

RL: DEV (Device component use); USES (Uses)

(polyoxyalkylene-, sulfo-containing, ionomers; subfemtomolar determination of alkaline phosphatase by cyclic voltammetric detection of cobaltocenium phosphate ester hydrolysis product at a perfluorosulfonated ionomer-coated disposable screen-printed electrode)

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L77 ANSWER 31 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1997:699332 ZCAPLUS Full-text

DOCUMENT NUMBER: 128:14216

ORIGINAL REFERENCE NO.: 128:2747a,2750a

TITLE: Extremely water-repellent coating films and coating compositions for their manufacture

INVENTOR(S): Shoji, Mitsuyoshi; Hamada, Tomoyuki; Kawashima, Kenichi; Ito, Yutaka

PATENT ASSIGNEE(S): Hitachi, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 09279056	A	19971028	JP 1996-96528	19960418
JP 3253851	B2	20020204		

PRIORITY APPLN. INFO.: JP 1996-96528 19960418

AB The title films, especially useful as frost-resistant coatings on evaporator fins of air conditioners and elec. cables, are formed from organic coating layers containing  $\geq 2$  fillers and showing fractal dimension (D)  $\geq 2.4$  and, preferably, surface area magnification factor ( $\gamma$ )  $\geq 2.0$ , and perfluoropolyoxyalkyl or perfluoropolyoxyalkylene compds. which can be used separated as the surface layers. Thus, EP 1004 (epoxy resin) 4.4, Maruka Lyncur M (phenolic resin) 3.0, and TEA-K (curing accelerator) 0.04 g were dissolved in a MEK-Bu Cellosolve acetate mixture and mixed with 1.5 g MEK solution containing 10% F[(CF<sub>2</sub>)<sub>3</sub>O]19CF<sub>2</sub>CF<sub>2</sub>CONHC<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>NHCOPh and 1.5 g 1:1 mixture of Aerosil 130 and Nipsil E 220A to prepare a coating, which was coated on an Al plate and cured to give a film showing D 2.85, water contact angle  $>160^\circ$ , and  $\gamma$  2.5.

IC ICM C09D005-00

ICS B05D005-00; B05D007-24; C09D007-12

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 47

IT Polyoxyalkylenes, uses

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(perfluoro; extremely water-repellent coating films and coating compns. for manufacture)

IT Fluoropolymers, uses

Fluoropolymers, uses

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or

engineered material use); PREP (Preparation); USES (Uses)  
 (polyoxyalkylene-, extremely water-repellent coating films  
 and coating compns. for manufacture)

L77 ANSWER 32 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:302374 ZCAPLUS Full-text  
 DOCUMENT NUMBER: 125:18673  
 ORIGINAL REFERENCE NO.: 125:3661a,3664a  
 TITLE: Solid oily cosmetics containing perfluoroalkyl  
 phosphate esters  
 INVENTOR(S): Yago, Juko; Imai, Takeo  
 PATENT ASSIGNEE(S): Kao Corp, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 08059430	A	19960305	JP 1994-203350	19940829
PRIORITY APPLN. INFO.:			JP 1994-203350	19940829

OTHER SOURCE(S): MARPAT 125:18673

AB Cosmetics contain 10-80 weight% phosphate esters containing perfluoroalkyl or perfluorooxyalkyl groups and 1-99 weight% oily perfluoro polyethers. The perfluoropolyethers may be R1(CF2CFR3CF2O)r(CFR4CF2O)s(CFR5O)R2 (R1, R3,R4,R5 = F, perfluoroalkyl, perfluorooxyalkyl; R2 = F, perfluoroalkyl; r, s, and t = number required to make the mol. weight 500-100,000). The cosmetics are prevented from color transfer onto paper and tablewares and the makeup effect lasts long. Bis(heptadecafluorodecyl) phosphate 20.0, FOMBLIN HC 04 (perfluoro polyether) 78.9, pearly pigment 1.0, Japan Red 202 0.1 weight%, and perfume were mixed under heating and the mixture was molded into a stick overcoat for lipsticks.

IC ICM A61K007-02

CC 62-4 (Essential Oils and Cosmetics)

IT Fluoropolymers

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(polyoxyalkylene-polyoxymethylene-, solid oily cosmetics containing perfluoroalkyl phosphate esters)

IT Polyoxyalkylenes, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(polyoxymethylene-, perfluoro, solid oily cosmetics containing perfluoroalkyl phosphate esters)

L77 ANSWER 33 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:113358 ZCAPLUS Full-text  
 DOCUMENT NUMBER: 124:148889  
 ORIGINAL REFERENCE NO.: 124:27653a,27656a  
 TITLE: Poly(perfluorinated alkylene oxide) chain-containing  
 phosphate esters for oil- and water-repellent coatings  
 on various articles  
 INVENTOR(S): Montagna, Laura; Scapin, Mauro; Picozzi, Rosaldo  
 PATENT ASSIGNEE(S): Ausimont S.p.A., Italy  
 SOURCE: Eur. Pat. Appl., 15 pp.e  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English

10/579814

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 687533	A1	19951220	EP 1995-108725	19950607
EP 687533	B1	20000913		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
US 5691000	A	19971125	US 1995-487233	19950607
AT 196273	T	20000915	AT 1995-108725	19950607
CA 2151577	A1	19951215	CA 1995-2151577	19950612
CA 2151577	C	20060808		
JP 08003516	A	19960109	JP 1995-144803	19950612
JP 3574222	B2	20041006		

PRIORITY APPLN. INFO.: IT 1994-MI1230 A 19940614

AB Phosphoric monoesters such as [RfOCFYLO]mP(O)(O-Z+)<sub>3</sub>-m (L = divalent organic group; m = 1; Y = F or CF<sub>3</sub>; Z = H, alkali metal or ammonium salt groups; Rf = polyperfluoro-oxyalkylene chain) are used for coating cellulosic (e.g., wood and paper), metallic (either ferrous or non-ferrous), vitreous (e.g., glass) or vitrified (e.g., ceramics) materials, cements, marbles, granites, and the like.

IC ICM B27K003-34

ICS C23F011-167; C03C017-28; C04B041-46

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 43, 55, 58

IT Polyoxyalkylenes, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(perfluoro, phosphate monoesters; for oil- and water-repellent coatings on various articles)

IT Fluoropolymers

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(polyoxyalkylene-, phosphate monoesters; for oil- and water-repellent coatings on various articles)

L77 ANSWER 34 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:95516 ZCAPLUS Full-text

DOCUMENT NUMBER: 124:185174

ORIGINAL REFERENCE NO.: 124:34095a,34098a

TITLE: Stable cosmetic emulsions containing perfluoro organic compounds, polyoxyalkylene-modified dimethylpolysiloxanes, and hydrophobic powders

INVENTOR(S): Hase, Noboru

PATENT ASSIGNEE(S): Kao Corp, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07309716	A	19951128	JP 1994-103058	19940517
JP 3905140	B2	20070418		

PRIORITY APPLN. INFO.: JP 1994-103058 19940517

OTHER SOURCE(S): MARPAT 124:185174

AB Cosmetic emulsions contain (a) liquid perfluoro organic compds., (b) perfluoroalkyl phosphates R1B1m(CH<sub>2</sub>)<sub>n</sub>OP(O)(OH)O(CH<sub>2</sub>)<sub>q</sub>B2pR2 (R1, R2 = C3-21

perfluoroalkyl, perfluorooxyalkyl; B1, B2 = divalent crosslinking group; m, p = 0, 1; n, q = 1-12), (c) polyoxyalkylene-modified di-Me polysiloxanes (average mol. weight 2000-50,000) in which 5-40% (to mol. weight) Me groups on the Si are substituted with R3(OC3H6)b(OC2H4)aO(CH2)d [R3 = H, C1-12 alkyl; a, b (average number) = 0-35; a = b ≠ 0], and (d) hydrophobic-treated powders. A cosmetic emulsions containing polyoxyalkylene-modified di-Me polysiloxane 3.0, liquid paraffin 10.0, KF 96A (di-Me polysiloxane) 10.0, Fomblin HC 25 (perfluoro polyether) 10.0, di(tridecafluorooctyl) phosphate 2.0, sericite pretreated with (C8F17CH2O)2P(O)OH 15.0, MgSO4 0.7, and H2O to 100 weight% was stable at 40° for 7 days.

IC ICM A61K007-02

ICS A61K007-00; A61K007-42; C07F009-09

CC 62-4 (Essential Oils and Cosmetics)

IT Fluoropolymers

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(polyether-, stable cosmetic emulsions containing liquid perfluoro organic compds., perfluoroalkyl phosphates, polyoxyalkylene -modified dimethylpolysiloxanes, and hydrophobic-treated powders)

IT Polyoxyalkylenes, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(siloxane-, stable cosmetic emulsions containing liquid perfluoro organic compds., perfluoroalkyl phosphates, polyoxyalkylene-modified dimethylpolysiloxanes, and hydrophobic-treated powders)

L77 ANSWER 35 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:571430 ZCAPLUS Full-text

DOCUMENT NUMBER: 123:88047

ORIGINAL REFERENCE NO.: 123:15649a,15652a

TITLE: Perfluoropolyether-containing lubricants and magnetic recording media

INVENTOR(S): Kondo, Hirofumi

PATENT ASSIGNEE(S): Sony Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 07062377	A	19950307	JP 1993-229485	19930823
PRIORITY APPLN. INFO.:			JP 1993-229485	19930823
OTHER SOURCE(S):	MARPAT	123:88047		

AB The lubricants comprise (RfCH2O)nPO(OR1)3-n (Rf = perfluoropolyether; R1 = C≥10 hydrocarbyl; n = 1,2) and/or (RfCH2O)nP(OR1)3-n and the media have the lubricants at least on surface of magnetic layers. The lubricants give high lubrication at low temperature and durable media and dissolve in solvents free of fluorochlorocarbons.

IC ICM C10M169-04

ICS G11B005-71

ICI C10M169-04, C10M105-74, C10M133-06; C10N030-06, C10N040-18

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)

Section cross-reference(s): 77

IT Fluoropolymers

RL: TEM (Technical or engineered material use); USES (Uses)

(polyoxyalkylene-polyoxymethylene-, lubricants containing perfluoropolyether-phosphate esters and/or phosphite esters for magnetic recording media)

IT Polyoxyalkylenes, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(polyoxymethylene-, fluorine-containing, lubricants containing perfluoropolyether-phosphate esters and/or phosphite esters for magnetic recording media)

IT 112-90-3 124-30-1, 1-Octadecanamine 2016-42-4, 1-Tetradecanamine  
2016-57-1, 1-Decanamine 2439-55-6 7664-38-2D, Phosphoric acid,  
perfluoropolyether-containing esters 13598-36-2D, Phosphonic acid,  
perfluoropolyether-containing esters 66351-61-9, Isooctadecanamine  
164980-40-9 164980-41-0 164980-42-1  
164980-43-2 164980-44-3 164980-45-4  
164980-46-5 164980-47-6 164980-48-7  
164980-49-8 164980-50-1 164980-51-2  
164980-52-3 165407-25-0 165407-26-1  
165407-27-2 165407-28-3 165407-48-7  
165407-49-8 165407-50-1 165407-51-2  
165467-29-8 165467-32-3 165561-00-2

RL: TEM (Technical or engineered material use); USES (Uses)

(lubricants containing perfluoropolyether-phosphate esters and/or phosphite esters for magnetic recording media)

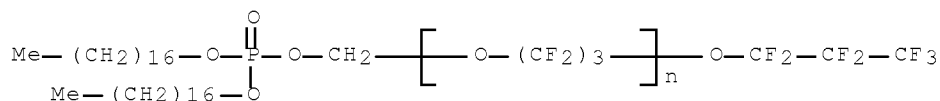
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164980-49-8 164980-50-1 164980-51-2  
164980-52-3 165407-25-0 165407-26-1  
165407-27-2 165407-28-3 165407-48-7  
165407-49-8 165407-50-1 165407-51-2  
165467-29-8 165467-32-3 165561-00-2

RL: TEM (Technical or engineered material use); USES (Uses)

(lubricants containing perfluoropolyether-phosphate esters and/or phosphite esters for magnetic recording media)

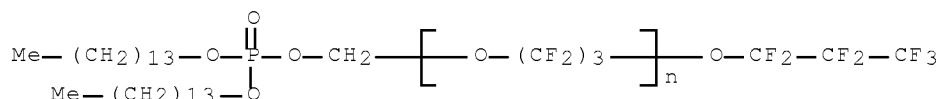
RN 164980-40-9 ZCAPLUS

CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -[[[bis(heptadecyloxy)phosphinyl]oxy]methyl]- $\omega$ -  
(heptafluoropropoxy)- (9CI) (CA INDEX NAME)



RN 164980-41-0 ZCAPLUS

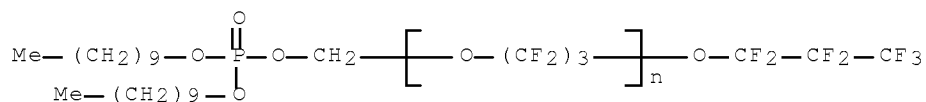
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 $\alpha$ -[[[bis(tetradecyloxy)phosphinyl]oxy]methyl]- $\omega$ -  
(heptafluoropropoxy)- (9CI) (CA INDEX NAME)





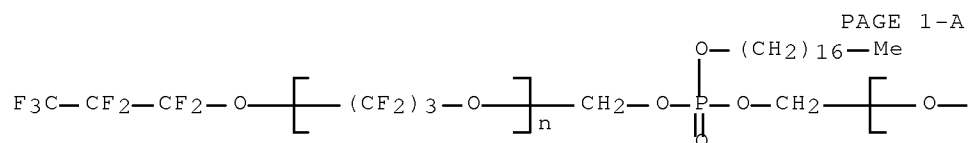
RN 164980-42-1 ZCAPLUS

CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -[[[bis(decyloxy)phosphinyloxy]methyl]- $\omega$ -  
 (heptafluoropropoxy)- (9CI) (CA INDEX NAME)



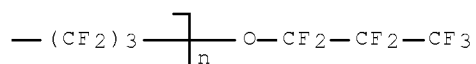
RN 164980-43-2 ZCAPLUS

CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha, \alpha'$ -[[ (heptadecyloxy)phosphinylidene]bis(oxymethylene)]bis[.o  
 mega.-(heptafluoropropoxy)- (9CI) (CA INDEX NAME)



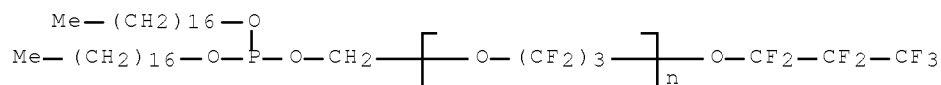
PAGE 1-A

PAGE 1-B



RN 164980-44-3 ZCAPLUS

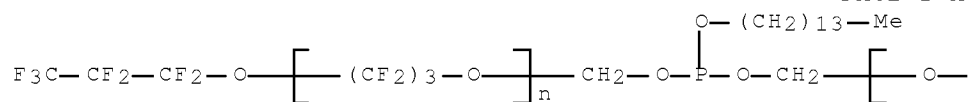
CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -[[[bis(heptadecyloxy)phosphino]oxy]methyl]- $\omega$ -  
 (heptafluoropropoxy)- (9CI) (CA INDEX NAME)



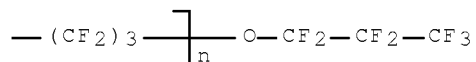
RN 164980-45-4 ZCAPLUS

CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha, \alpha'$ -[[ (tetradecyloxy)phosphinidene]bis(oxymethylene)]bis[.ome  
 ga.-(heptafluoropropoxy)- (9CI) (CA INDEX NAME)

PAGE 1-A



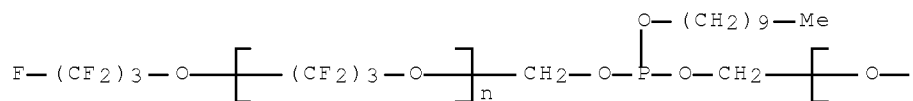
PAGE 1-B



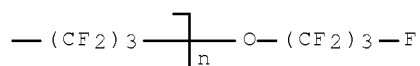
RN 164980-46-5 ZCAPLUS

CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha,\alpha'$ -[[ (decyloxy)phosphinidene]bis(oxymethylene)]bis[ $\omega$ -  
 (heptafluoropropoxy)- (9CI) (CA INDEX NAME)]

PAGE 1-A



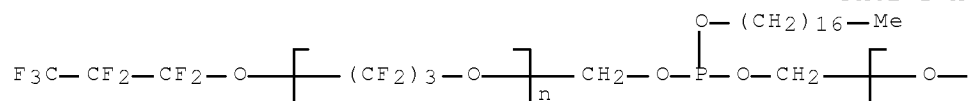
PAGE 1-B

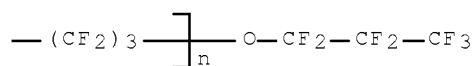


RN 164980-47-6 ZCAPLUS

CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha,\alpha'$ -[[ (heptadecyloxy)phosphinidene]bis(oxymethylene)]bis[.ome  
 ga.-(heptafluoropropoxy)- (9CI) (CA INDEX NAME)]

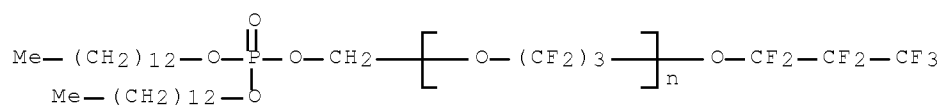
PAGE 1-A





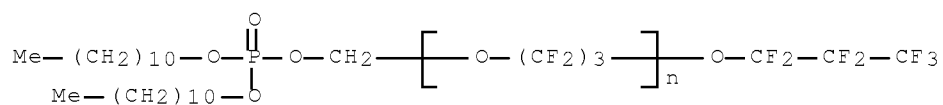
RN 164980-48-7 ZCAPLUS

CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -[[[bis(tridecyloxy)phosphinyl]oxy]methyl]- $\omega$ -  
 (heptafluoropropoxy)- (9CI) (CA INDEX NAME)



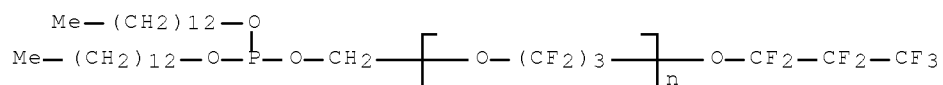
RN 164980-49-8 ZCAPLUS

CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -[[[bis(undecyloxy)phosphinyl]oxy]methyl]- $\omega$ -  
 (heptafluoropropoxy)- (9CI) (CA INDEX NAME)



RN 164980-50-1 ZCAPLUS

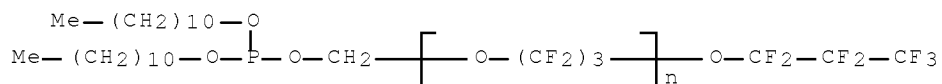
CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -[[[bis(tridecyloxy)phosphino]oxy]methyl]- $\omega$ -  
 (heptafluoropropoxy)- (9CI) (CA INDEX NAME)



RN 164980-51-2 ZCAPLUS

CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -[[[bis(undecyloxy)phosphino]oxy]methyl]- $\omega$ -  
 (heptafluoropropoxy)- (9CI) (CA INDEX NAME)

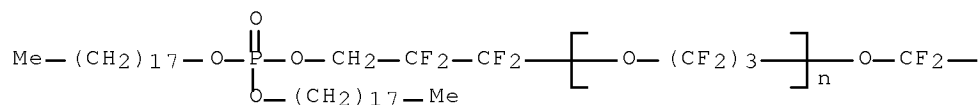
10/579814



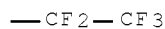
RN 164980-52-3 ZCAPLUS

CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
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 $\omega$ -(heptafluoropropoxy)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



RN 165407-25-0 ZCAPLUS

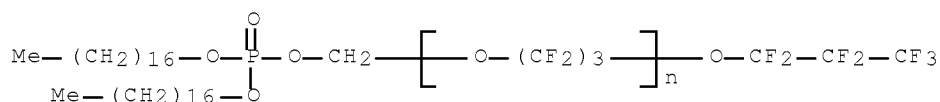
CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -[[[bis(heptadecenyloxy)phosphinyl]oxy]methyl]- $\omega$ -  
(heptafluoropropoxy)- (9CI) (CA INDEX NAME)

CM 1

CRN 164980-40-9

CMF (C3 F6 O)<sub>n</sub> C38 H72 F7 O5 P

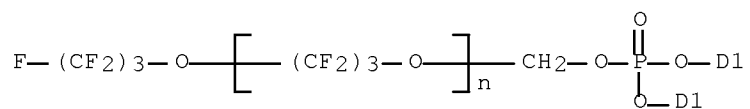
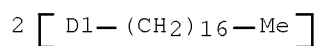
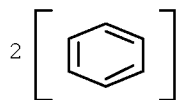
CCI PMS



RN 165407-26-1 ZCAPLUS

CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -[[[bis(heptadecylphenoxy)phosphinyl]oxy]methyl]- $\omega$ -  
(heptafluoropropoxy)- (9CI) (CA INDEX NAME)

10/579814



RN 165407-27-2 ZCAPLUS

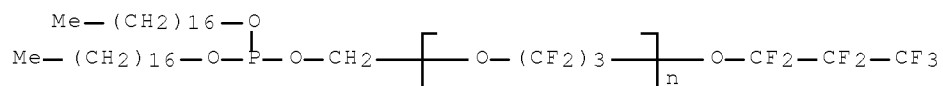
CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -[[[bis(heptadecenyloxy)phosphino]oxy]methyl]- $\omega$ -  
 (heptafluoropropoxy)- (9CI) (CA INDEX NAME)

CM 1

CRN 164980-44-3

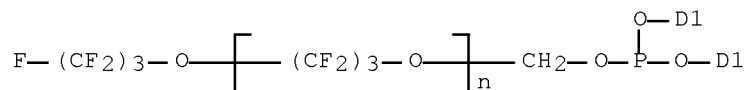
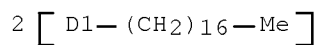
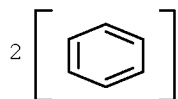
CMF (C3 F6 O)<sub>n</sub> C38 H72 F7 O4 P

CCI PMS



RN 165407-28-3 ZCAPLUS

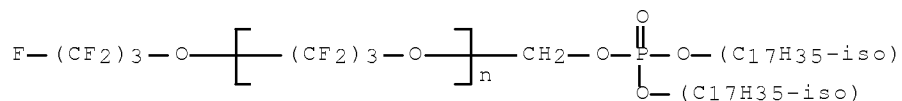
CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -[[[bis(heptadecylphenoxy)phosphino]oxy]methyl]- $\omega$ -  
 (heptafluoropropoxy)- (9CI) (CA INDEX NAME)



RN 165407-48-7 ZCAPLUS

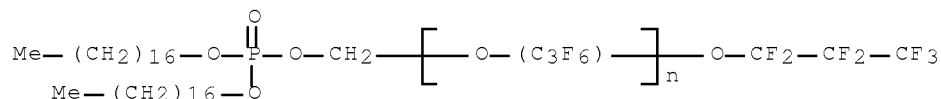
10/579814

CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -[[[bis(isoheptadecyloxy)phosphinyl]oxy]methyl]- $\omega$ -  
 (heptafluoropropoxy)- (9CI) (CA INDEX NAME)



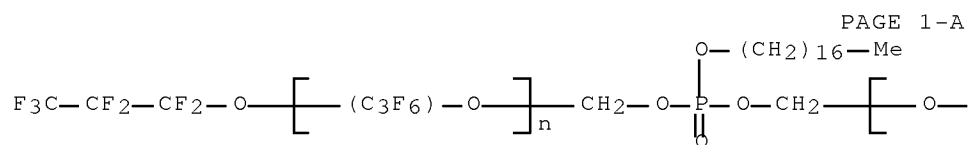
RN 165407-49-8 ZCAPLUS

CN Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)],  
 $\alpha$ -[[[bis(heptadecyloxy)phosphinyl]oxy]methyl]- $\omega$ -  
 (heptafluoropropoxy)- (9CI) (CA INDEX NAME)



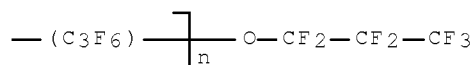
RN 165407-50-1 ZCAPLUS

CN Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)],  
 $\alpha, \alpha'$ -[[bis(heptadecyloxy)phosphinylidene]bis(oxymethylene)]bis[.o  
 mega.- (heptafluoropropoxy)- (9CI) (CA INDEX NAME)



PAGE 1-A

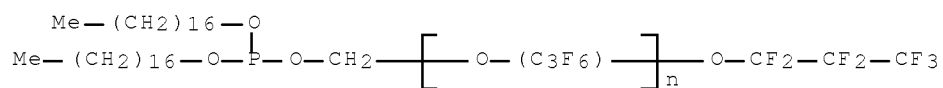
PAGE 1-B



RN 165407-51-2 ZCAPLUS

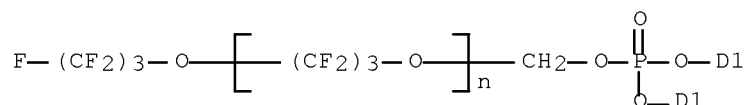
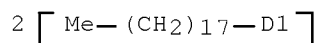
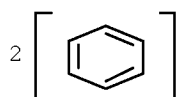
CN Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)],  
 $\alpha$ -[[[bis(heptadecyloxy)phosphino]oxy]methyl]- $\omega$ -  
 (heptafluoropropoxy)- (9CI) (CA INDEX NAME)

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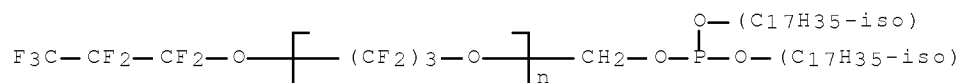
RN 165467-29-8 ZCAPLUS

CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -[[[bis(octadecylphenoxy)phosphinyl]oxy]methyl]- $\omega$ -  
 (heptafluoropropoxy)- (9CI) (CA INDEX NAME)



RN 165467-32-3 ZCAPLUS

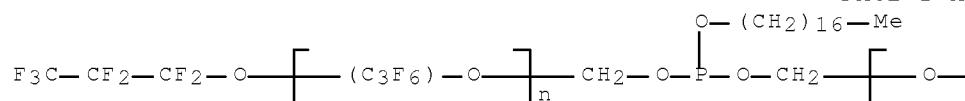
CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -[[[bis(isoheptadecyloxy)phosphino]oxy]methyl]- $\omega$ -  
 (heptafluoropropoxy)- (9CI) (CA INDEX NAME)

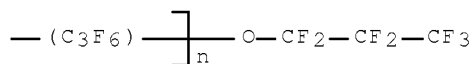


RN 165561-00-2 ZCAPLUS

CN Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)],  
 $\alpha, \alpha'$ -[[[bis(heptadecyloxy)phosphinidene]bis(oxymethylene)]bis[.ome  
 ga.-(heptafluoropropoxy)- (9CI) (CA INDEX NAME)

PAGE 1-A





L77 ANSWER 36 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1993:104879 ZCAPLUS Full-text

DOCUMENT NUMBER: 118:104879

ORIGINAL REFERENCE NO.: 118:18327a,18330a

TITLE: Fluoroalkyl ether-containing, waterproofing, oilproofing, lubricating coatings, and application to surfaces

INVENTOR(S): Shoji, Mitsuyoshi; Nakakawaji, Takayuki; Ito, Yutaka; Komatsuzaki, Shigeki; Mukoh, Akio

PATENT ASSIGNEE(S): Hitachi, Ltd., Japan

SOURCE: U.S., 12 pp. Cont. of U.S. Ser. No. 411,882.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5157066	A	19921020	US 1991-724724	19910702
PRIORITY APPLN. INFO.:			US 1989-411882	A1 19890925

AB Oil- and waterproofing, lubricating resin coatings for substrates used in computers and large-scale integrated circuit modules contain (Rf)m(CONHXNHCOY)m1 [Rf = F[CF(CF3)CF2O]nCF(CF3) or (C2F4O)x(CF2O)y(CF2)z, X = C6H4OC6H4OC6H4 or C6H4OC6H4ZC6H4OC6H4, Y = Ph, C6H4OPh, or F[CF(CF3)CF2O]nCF(CF3), Z = CH2, CMe2, C(CF3)2, CO, S, or SO2, m, m1 = 1 or 2, m and m1 ≠ 2 simultaneously, n, x, y = 1-50, z = 0 or 1]. Thus, a solution containing bisphenol A epoxy resin 4.5, resol phenolic resin 4, poly(vinyl butyral) 1.5, p-F[CF(CF3)CF2O]nCF(CF3)CONHC6H4OC6H4-p- OC6H4NHCOPh-p (n = average 14) 0.5, MEK 15, and cyclohexanone 2000 g was applied to an Al alloy precoated with a 1-μm amorphous silicon film and heated 1 h at 200° to give a 50-nm coating with water and C6H6 contact angles 110 and 27, resp., compared with 63 and 0, resp., without the top coating.

IC ICM C08J005-12  
ICS C08K005-20; C08K005-36; C08K005-48; C08L027-12

INCL 524220000

CC 42-5 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 76

IT Epoxy resins, uses  
Phenolic resins, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, oil- and waterproofing lubricating, containing fluoroalkyl ethers)

IT Fluoropolymers  
RL: USES (Uses)  
(polyoxyalkylene-polyoxymethylene-, coatings containing, for improved oil- and waterproofing and lubricating properties)

IT Polyoxyalkylenes, uses  
RL: USES (Uses)  
(polyoxymethylene-, perfluoro, coatings containing, for improved



oil- and waterproofing and lubricating properties)

L77 ANSWER 37 OF 37 ZCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1992:537435 ZCAPLUS Full-text

DOCUMENT NUMBER: 117:137435

ORIGINAL REFERENCE NO.: 117:23711a,23714a

TITLE: Oily skin preparations containing bis(perfluoroalkyl) phosphates and perfluoropolyethers

INVENTOR(S): Hase, Noboru; Maeda, Junichi

PATENT ASSIGNEE(S): Kao K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04091012	A	19920324	JP 1990-205137	19900803
JP 3018091	B2	20000313		

PRIORITY APPLN. INFO.: JP 1990-205137 19900803

AB The preps. show resistance to water and oil, and contain bis(perfluoroalkyl) phosphate 0.1-10, and oily perfluoropolyether 10-99 % by weight Di-Me siloxane 5.0, (C<sub>6</sub>F<sub>13</sub>CH<sub>2</sub>CH<sub>2</sub>O)<sub>2</sub>PO<sub>2</sub>H (I) 3.0, Fomblin HC-04 (perfluoropolyether) 45.0, dextrin fatty acid ester 1.0, candelilla wax 2.3, BHT 0.1, I-treated pigments 43.5, and perfume 0.1 part were mixed to manufacture a cosmetic foundation.

IC ICM A61K007-00

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 63

IT Polyoxyalkylenes, biological studies

RL: BIOL (Biological study)

(fluorine-containing, oily cosmetics containing di(perfluoroalkyl) phosphates and, water- and oil-resistant)

IT Fluoropolymers

RL: BIOL (Biological study)

(polyoxyalkylene-, oily cosmetics containing di(perfluoroalkyl) phosphates and, water- and oil-resistant)

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=> d his full

(FILE 'HOME' ENTERED AT 10:38:45 ON 22 MAY 2009)

FILE 'REGISTRY' ENTERED AT 10:41:55 ON 22 MAY 2009

L1 2101 SEA SPE=ON ABB=ON PLU=ON PMS/CI AND P/ELS AND F/ELS AND O>3

L2 531 SEA SPE=ON ABB=ON PLU=ON L1 AND HEXAFLUOROPHOSPHAT?/CNS

L3 1570 SEA SPE=ON ABB=ON PLU=ON L1 NOT L2

FILE 'ZCAPLUS' ENTERED AT 10:47:32 ON 22 MAY 2009

E US2006-579814/APPS

L4 1 SEA SPE=ON ABB=ON PLU=ON US2006-579814/AP

D SCA

SEL RN

FILE 'REGISTRY' ENTERED AT 10:50:32 ON 22 MAY 2009

L5 8 SEA SPE=ON ABB=ON PLU=ON (127-40-2/BI OR 11103-57-4/BI OR  
1406-18-4/BI OR 222838-60-0/BI OR 324519-76-8/BI OR 50-81-7/BI  
OR 502-65-8/BI OR 639001-45-9/BI)  
D SCA

FILE 'STNGUIDE' ENTERED AT 10:53:17 ON 22 MAY 2009

FILE 'ZCAPLUS' ENTERED AT 10:54:27 ON 22 MAY 2009

E PANIN G/AU

L6 74 SEA SPE=ON ABB=ON PLU=ON PANIN G##/AU

L7 12 SEA SPE=ON ABB=ON PLU=ON PANIN GIORGIO/AU

L8 86 SEA SPE=ON ABB=ON PLU=ON L6 OR L7

FILE 'REGISTRY' ENTERED AT 10:56:18 ON 22 MAY 2009

FILE 'ZCAPLUS' ENTERED AT 10:56:31 ON 22 MAY 2009

L9 TRA PLU=ON L8 1- RN : 148 TERMS

FILE 'REGISTRY' ENTERED AT 10:56:33 ON 22 MAY 2009

L10 148 SEA SPE=ON ABB=ON PLU=ON L9

L11 1 SEA SPE=ON ABB=ON PLU=ON L10 AND F/ELS  
D SCA

L12 1 SEA SPE=ON ABB=ON PLU=ON L10 AND P/ELS  
D SCA  
D SCA L10

FILE 'ZCAPLUS' ENTERED AT 10:59:40 ON 22 MAY 2009

D SCA L7

FILE 'STNGUIDE' ENTERED AT 12:43:32 ON 22 MAY 2009

FILE 'REGISTRY' ENTERED AT 12:43:34 ON 22 MAY 2009

L13 STRUCTURE UPLOADED

L14 STRUCTURE UPLOADED

D

L15 STRUCTURE UPLOADED

D

L16 25 SEA SSS SAM L13 AND L14 AND L15

D SCA

L17 STRUCTURE UPLOADED

L18 13 SEA SSS SAM L17 AND L14 AND L15

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      D SCA
L19      STRUCTURE UPLOADED
L20      12 SEA SSS SAM L19 AND L14 AND L15
      D STAT QUE L16
L21      468 SEA SSS FUL L13 AND L14 AND L15
      SAVE TEMP MAT814131415/A L21
L22      12 SEA SUB=L21 SSS SAM L19 AND L14 AND L15
L23      188 SEA SUB=L21 SSS FUL L19 AND L14 AND L15

      FILE 'ZCAPLUS' ENTERED AT 13:03:48 ON 22 MAY 2009
L24      99 SEA SPE=ON ABB=ON PLU=ON L23

      FILE 'REGISTRY' ENTERED AT 13:03:58 ON 22 MAY 2009
      SAVE TEMP MAT814191415/A L23
L25      152 SEA SPE=ON ABB=ON PLU=ON L23 AND PMS/CI
L26      36 SEA SPE=ON ABB=ON PLU=ON L23 NOT L25
      D SCA
L27      STRUCTURE UPLOADED
L28      0 SEA SUB=L21 SSS SAM L19 AND L27 AND L15
L29      9 SEA SUB=L21 SSS FUL L19 AND L27 AND L15
      D SCA

      FILE 'ZCAPLUS' ENTERED AT 13:17:47 ON 22 MAY 2009
L30      4 SEA SPE=ON ABB=ON PLU=ON L29
      S L19 AND L27 AND L15

      FILE 'REGISTRY' ENTERED AT 13:18:14 ON 22 MAY 2009
L*** DEL 50 S L19 SSS SAM

      FILE 'ZCAPLUS' ENTERED AT 13:18:15 ON 22 MAY 2009
L*** DEL 56 S L31 SSS SAM

      FILE 'REGISTRY' ENTERED AT 13:18:15 ON 22 MAY 2009
L*** DEL 17 S L27 SSS SAM

      FILE 'ZCAPLUS' ENTERED AT 13:18:16 ON 22 MAY 2009
L*** DEL 19 S L33 SSS SAM

      FILE 'REGISTRY' ENTERED AT 13:18:17 ON 22 MAY 2009
L*** DEL 50 S L15 SSS SAM

      FILE 'ZCAPLUS' ENTERED AT 13:18:18 ON 22 MAY 2009
L*** DEL 40 S L35 SSS SAM
L*** DEL 0 S L32 AND L34 AND L36 SSS SAM

      FILE 'REGISTRY' ENTERED AT 13:18:50 ON 22 MAY 2009
L31      0 SEA SSS SAM L19 AND L27 AND L15
L32      STRUCTURE UPLOADED
      D L15
      D L19
      D L27
L33      0 SEA SSS SAM L19 AND L15 AND L32
L34      10 SEA SSS FUL L19 AND L15 AND L32
      D SCA

      FILE 'ZCAPLUS' ENTERED AT 13:28:51 ON 22 MAY 2009
L35      5 SEA SPE=ON ABB=ON PLU=ON L34
L36      5 SEA SPE=ON ABB=ON PLU=ON L30 OR L35
L37      0 SEA SPE=ON ABB=ON PLU=ON ?PHENOL?/BI AND L36
L38      126993 SEA SPE=ON ABB=ON PLU=ON POLYOXYALKYLENE?/CW
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E FLUOROPOLYMERS+ALL/CT  
L39 100560 SEA SPE=ON ABB=ON PLU=ON FLUOROPOLYMER?/CW OR FLUORO  
RUBBER?/CW  
L40 2708 SEA SPE=ON ABB=ON PLU=ON L38 (L) ?FLUORO?/BI  
L41 8146 SEA SPE=ON ABB=ON PLU=ON L39 (L) (?POLYOXYALKYL?/BI OR  
PEG?/BI OR POLYETHYLENE GLYCOL?/BI)  
L42 1364 SEA SPE=ON ABB=ON PLU=ON L40 AND L41  
L43 68 SEA SPE=ON ABB=ON PLU=ON L40 (L) ?PHOSPHAT?/BI  
L44 70 SEA SPE=ON ABB=ON PLU=ON L41 (L) ?PHOSPHAT?/BI  
L45 21 SEA SPE=ON ABB=ON PLU=ON L43 AND L44  
D SCA  
L46 3 SEA SPE=ON ABB=ON PLU=ON L42 AND DIPHOSPHAT?/BI  
D SCA  
L47 2 SEA SPE=ON ABB=ON PLU=ON L42 AND (POLYPHENOL?/BI OR POLY  
PHENOL?/BI)  
D SCA  
E POLYPHENOLS+ALL/CT  
L48 87075 SEA SPE=ON ABB=ON PLU=ON PHENOLIC RESIN?/BI  
E E2+ALL/CT  
L49 10329 SEA SPE=ON ABB=ON PLU=ON "PHENOL CONDENSATION PRODUCTS"/CT  
L50 11904 SEA SPE=ON ABB=ON PLU=ON "RESINOUS PRODUCTS"/CT  
E PHENOLS/CT  
E PHENOLS (L) POLY/CT  
E E6+ALL/CT  
L51 3999 SEA SPE=ON ABB=ON PLU=ON PHENOLS/CT (L) POLYMER?/BI  
L52 35447 SEA SPE=ON ABB=ON PLU=ON POLYPHENOL?/BI OR POLY PHENOL?/BI  
L53 0 SEA SPE=ON ABB=ON PLU=ON L36 AND (L48 OR L49 OR L50 OR L51  
OR L52)  
L54 14 SEA SPE=ON ABB=ON PLU=ON L42 AND (L48 OR L49 OR L50 OR L51  
OR L52)  
D SCA  
L55 1 SEA SPE=ON ABB=ON PLU=ON L54 AND ?PHOSPHAT?/BI  
L56 34 SEA SPE=ON ABB=ON PLU=ON L45 OR L54  
L57 36 SEA SPE=ON ABB=ON PLU=ON L45 OR L46 OR L47 OR L54

FILE 'REGISTRY' ENTERED AT 13:46:34 ON 22 MAY 2009

FILE 'ZCAPLUS' ENTERED AT 13:47:04 ON 22 MAY 2009

L58 TRA PLU=ON L57 1- RN : 296 TERMS

FILE 'REGISTRY' ENTERED AT 13:47:05 ON 22 MAY 2009

L59 296 SEA SPE=ON ABB=ON PLU=ON L58  
L60 166 SEA SPE=ON ABB=ON PLU=ON L59 AND PMS/CI  
L61 82 SEA SPE=ON ABB=ON PLU=ON L60 AND F/ELS  
L62 29 SEA SPE=ON ABB=ON PLU=ON L61 AND P/ELS  
D SCA

FILE 'ZCAPLUS' ENTERED AT 13:51:32 ON 22 MAY 2009

FILE 'REGISTRY' ENTERED AT 13:52:24 ON 22 MAY 2009

L63 1 SEA SPE=ON ABB=ON PLU=ON "(C3 F6 O)N C5 H3 CL F8 O2 . X H3  
O4 P"/MF

FILE 'ZCAPLUS' ENTERED AT 13:52:41 ON 22 MAY 2009

L64 1 SEA SPE=ON ABB=ON PLU=ON L63  
L65 3 SEA SPE=ON ABB=ON PLU=ON L62 AND L57  
L66 4 SEA SPE=ON ABB=ON PLU=ON L62  
L67 1 SEA SPE=ON ABB=ON PLU=ON L8 AND L42  
L68 0 SEA SPE=ON ABB=ON PLU=ON L8 AND L21  
L69 1 SEA SPE=ON ABB=ON PLU=ON L8 AND L38

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L70 1 SEA SPE=ON ABB=ON PLU=ON L8 AND L39  
L71 8 SEA SPE=ON ABB=ON PLU=ON L5 AND L8  
L72 1 SEA SPE=ON ABB=ON PLU=ON L8 AND ?FLUORO?/BI AND COSMETIC?/BI

FILE 'MEDLINE, EMBASE, BIOSIS, WPIX' ENTERED AT 13:58:33 ON 22 MAY 2009  
L\*\*\* DEL 0 S L72

FILE 'MEDLINE, EMBASE, BIOSIS, WPIX' ENTERED AT 13:59:03 ON 22 MAY 2009  
L73 1 SEA SPE=ON ABB=ON PLU=ON PANIN G?/AU AND ?FLUORO? AND  
COSMETIC?  
D SCA

FILE 'REGISTRY' ENTERED AT 14:00:17 ON 22 MAY 2009

FILE 'ZCAPLUS' ENTERED AT 14:00:20 ON 22 MAY 2009  
D STAT QUE L67  
D STAT QUE L69  
D STAT QUE L70  
D STAT QUE L71  
L74 8 SEA SPE=ON ABB=ON PLU=ON L67 OR L69 OR L70 OR L71

FILE 'MEDLINE, EMBASE, BIOSIS, WPIX' ENTERED AT 14:01:15 ON 22 MAY 2009  
D STAT QUE L73

FILE 'ZCAPLUS, WPIX' ENTERED AT 14:01:26 ON 22 MAY 2009  
L75 8 DUP REM L74 L73 (1 DUPLICATE REMOVED)  
ANSWERS '1-8' FROM FILE ZCAPLUS  
D IBIB ABS HITIND HITSTR L75 1-8

FILE 'REGISTRY' ENTERED AT 14:02:25 ON 22 MAY 2009

FILE 'ZCAPLUS' ENTERED AT 14:02:27 ON 22 MAY 2009  
D STAT QUE L30  
D STAT QUE L35  
L76 5 SEA SPE=ON ABB=ON PLU=ON L30 OR L35  
D IBIB ABS HITSTR L76 1-5

FILE 'ZCAPLUS' ENTERED AT 14:03:50 ON 22 MAY 2009  
D STAT QUE L45  
D STAT QUE L46  
D STAT QUE L47  
D STAT QUE L53  
D STAT QUE L54  
D STAT QUE L66  
L77 37 SEA SPE=ON ABB=ON PLU=ON L45 OR L46 OR L47 OR L54 OR L66  
D IBIB ABS HITIND HITSTR L77 1-37

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 21 MAY 2009 HIGHEST RN 1148104-81-7  
DICTIONARY FILE UPDATES: 21 MAY 2009 HIGHEST RN 1148104-81-7

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FILE ZCAPLUS

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FILE COVERS 1907 - 22 May 2009 VOL 150 ISS 22  
FILE LAST UPDATED: 21 May 2009 (20090521/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2009

ZCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE STNGUIDE  
FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: May 15, 2009 (20090515/UP).

FILE MEDLINE  
FILE LAST UPDATED: 21 May 2009 (20090521/UP). FILE COVERS 1949 TO DATE.

MEDLINE and LMEDLINE have been updated with the 2009 Medical Subject Headings (MeSH) vocabulary and tree numbers from the U.S. National Library of Medicine (NLM). Additional information is available at

[http://www.nlm.nih.gov/pubs/techbull/nd08/nd08\\_medline\\_data\\_changes\\_2009](http://www.nlm.nih.gov/pubs/techbull/nd08/nd08_medline_data_changes_2009).

On February 21, 2009, MEDLINE was reloaded. See HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

See HELP RANGE before carrying out any RANGE search.

FILE EMBASE

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FILE COVERS 1974 TO 22 May 2009 (20090522/ED)

EMBASE was reloaded on March 30, 2008.

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

Beginning January 2008, Elsevier will no longer provide EMTREE codes as part of the EMTREE thesaurus in EMBASE. Please update your current-awareness alerts (SDIs) if they contain EMTREE codes.

For further assistance, please contact your local helpdesk.

FILE BIOSIS

FILE COVERS 1926 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT  
FROM JANUARY 1926 TO DATE.

RECORDS LAST ADDED: 20 May 2009 (20090520/ED)

BIOSIS has been augmented with 1.8 million archival records from 1926 through 1968. These records have been re-indexed to match current BIOSIS indexing.

FILE WPIX

FILE LAST UPDATED: 17 MAY 2009 <20090517/UP>

MOST RECENT UPDATE: 200931 <200931/DW>

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>>> IPC, ECLA and US National Classifications have been updated with reclassifications to March 15th, 2009.

F-Term and FI-Term original classifications are current and reclassification will commence in June.

No update date (UP) has been created for the reclassified documents, but they can be identified by specific update codes (see HELP CLA for details)<<<

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[http://www.stn-international.com/DWPIAnaVist2\\_0608.html](http://www.stn-international.com/DWPIAnaVist2_0608.html)

>>> HELP for European Patent Classifications see HELP ECLA, HELP ICO <<<

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